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**Blurred Boundaries of Journalism and NGOs in the Civic Space:
An Inter-organizational Network Analysis of Sustainable Development,
Human Rights, and Journalism Organizations**

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Human Rights, and Journalism Organizations**

by

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Dedication

To my parents

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**Blurred Boundaries of Journalism and NGOs in the Civic Space:
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Sun Ho Jeong, Ph.D.

The University of Texas at Austin, 2015

Supervisor: Stephen D. Reese

Globalization has brought about notable changes in the international system by decentralizing the power of national political systems and by opening up opportunities for the rise of a global civil society. The power of civic actors, such as non-governmental organizations (NGOs), is growing due to the advancement of technological means to access information, share views, and mobilize action. The emergence of a global civil society has positive connotations in terms of introducing richness of information, providing multiple perspectives and interpretations on public affairs, and mobilizing grassroots activities. However, questions persist as to whether and how the current communication system, which is dominated primarily by so-called global media and rooted in Western news agencies, is capable of being transformed into a structure to support the free and frequent flow of relevant information across national boundaries.

In light of the recent trend of NGOs producing and distributing information, this dissertation analyzes the structure of inter-organizational networks for sustainable development, human rights, and journalism organizations in order to examine the potential of these networks to complement the current structure of global communication, to analyze the diversity and direction of information flow, and to identify the factors that

shape NGOs' communication behaviors in terms of both their relationship with other international organizations and their use of interactive platforms for distributing information.

When structures of the three issue-specific networks were compared, the sustainable development and human rights networks were more densely interconnected, and the journalism network showed a more centralized structure. The structure of the sustainable development network was more stable, with a higher number of reciprocal relationships among the organizations. In the sustainable development and human rights networks, organizations were found to establish formal relationships following the logic of resource dependence theory. An NGO's use of social media for presentation of visual materials and a large number of subscribers to its informational materials were identified as contributing factors to its centrality in the network.

These findings are discussed to speculate on the inter-organizational network of international organizations' potential to build a global communication structure and to improve the ways that NGOs interact with other organizations.

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INTRODUCTION

Chapter 1: Journalism's Blurred Boundaries and the Emergence of NGOs in the Communicative Space for Global News and Information

Globalization has brought about notable changes in the international system by decentralizing the power of national political systems and by opening up opportunities for the rise of a global civil society. Given the transnational nature of issues as exemplified by climate change, financial crises, terrorism, and others, it is becoming more difficult for a single government to properly address and manage such problems alone. In the meantime, the power of civic actors, such as non-governmental organizations (NGOs) and spontaneous grassroots movements, is growing rapidly accelerated by the advancement of technological means to access information, share views, and mobilize action. The emergence of a global civil society has positive connotations at local, national and transnational levels in terms of introducing richness of information, providing multiple perspectives and interpretations of public affairs, and mobilizing grassroots activities. However, questions persist as to whether and how the current communication system, which is dominated primarily by so-called global media, rooted in Western news agencies, are capable of being transformed into a structure to support free and frequent flow of relevant information across national boundaries. This challenge for transformation is especially critical as the work of the Western-based global media is considered to be unbalanced and unequal between developed and less-developed nations (MacBride Commission, 1980). One approach toward addressing these concerns may result from an examination of the current state of journalism and its involvement with non-traditional actors who are making the news.

The media landscape is rapidly changing, in part, due to the widespread availability of emerging media platforms that are being utilized by individuals and organizations. These changes are leading to phenomena similar to the emergence of decentralized power of traditionally dominant nation states and the rise of civic actors in the international political/economic arena. That is, within the field of communication, there is a blurring of traditional boundaries with regard to what is considered to be the profession of journalism and who is regarded as a journalist. For instance, the title of “journalist” was previously reserved exclusively for professional reporters and editors who worked for news outlets. Nowadays those career descriptions are being impinged upon by the designation of “citizen journalists,” which is a term that refers to individuals who report news but are neither professional reporters nor editors affiliated with established media organizations. This shifting of boundaries has become particularly evident as groups of people, outside the traditional media organizations, have begun to share news and information in parallel with the rise of emerging media platforms. For example, citizen journalists started to emerge with the public use of the Internet, followed by political bloggers who came into being along with popular use of weblogs for the purpose of publishing individual views on news and public affairs (Reese, Rutigliano, Hyun, & Jeong, 2007). In turn, along came the creation of blogospheres that support interconnected communities online. More recently, the social networking service Twitter, which was originally introduced as a micro-blogging service for personal social networking, is supplying a large amount of news feed that enables rapid distribution of news at local, national, and transnational levels (Bruns & Burgess, 2012). In other words, in concert with emerging technologies have come the introduction and expansion of a wide variety of different kinds of communication networks.

Concurrently, there has come to the forefront another new trend in the production of news and information that is being distributed by NGOs – once more blurring boundaries in the traditional field of journalism. The term NGOs refers to “legally constituted organizations created by private persons or organizations without participation or representation of any government” (Union of International Associations, n.d.). Examples of NGOs include organizations that provide a multitude of services or advocacy work worldwide including, for example, groups such as Amnesty International, Greenpeace, and World Vision. Historically, NGOs’ communications work has typically included public relations and publication of newsletters and research reports. However, in today’s global environment made dynamic by advances in technology, the communications work of NGOs is becoming more strategic by groups that produce and distribute their own content through reliance on their own electronic platforms that bypass coverage by the traditional media (Ellis, 2012). In many ways, the NGO output resembles the format of traditional journalistic reporting. For example, on the organization’s official website, the Human Rights Watch, a New York-based advocacy group with offices in 18 cities around the globe, has added “news” and “multimedia” sections on which the latest news and editorials on human rights violations around the world are posted in text and communicated also through multimedia storytelling. Those updates are adjacent to sections entitled “our work” and “publications” where lengthy research reports are posted. Additionally, the “latest news” on the Human Rights Watch website can be browsed by geographical regions and topics, similar to the ways that typical media outlets display international news. The organization describes itself as “known for accurate fact-finding, impartial reporting, effective use of media, and targeted advocacy” (Human Rights Watch, n.d.). Furthermore, the group represents itself as the

source that supplies news for journalists (e.g., “Get your news...where journalists get theirs”).

As the example of Human Rights Watch suggests, NGOs’ commitment of their human resources, country coverage, and professional capacity is known to rivaling the resources that major news agencies invest in international reporting (Powers, 2015). However, compared to the body of research on traditional news outlets, little remains to be known about the role of NGOs in the realm of international communication and journalism in both theoretical and practical terms. Theoretically, the significance of this study lies in comprehending the underlying logic of the way in which NGOs operate in terms of the information flow among them—for example, the extent to which they are involved in the communication of diverse information—in order to extend the theoretical discussions on the two paradigms of research on international communication: global dominance and global public sphere paradigms. With regard to the specific theories applied, the homophily model in social network theory and resource dependence theory are used to explain NGOs’ communicative behaviors among themselves and to find implications of such behavior in their exchange of news and information. At the practical level, this study adds to the current literature about NGOs’ news and information work by specifically focusing on the network environment of NGOs, where most of the information about the current status of international and public affairs is being exchanged, deliberated, and eventually distributed to policy makers, media professionals, and the general public.

PURPOSE OF STUDY

Given that the boundaries of both the civic sphere and journalism are becoming arbitrary and that NGOs are emerging as one of the key players in this space, the aim of

the current study is to investigate inter-organizational networks among NGOs for the following reasons: to identify implications of NGO networks as a foundation for a global communication structure, to examine communication behaviors in terms of interaction with other NGOs as well as their utilization of social media channels, and to understand implications for the emerging global civil society.

Noting that the structure of international communication has long been considered unbalanced, with most of the global news flowing from developed countries to less-developed ones and leaving less-developed countries with almost no interaction among themselves, with most global news shaped mainly by the mediated work of the Western news agencies (MacBride Commission, 1980), the primary interests of this research are two-fold. The first goal is to examine whether NGOs are contributing to an overturn of past tendencies through production and distribution of their own news in ways that foster a more balanced flow of information across national and cultural boundaries. In achieving that goal, this study examines the number of NGOs involved, their geographical distribution, the degree of interconnectedness and their patterns of inter-organizational collaboration. The second goal is to investigate external and internal factors – such as issue-specialty and nature of the relevant work, communication strategies, and practices by each organization - that may be shaping and possibly transforming the current structure and flow of global communication dominated by Western media coverage.

In seeking to achieve those aims, this dissertation combines two different theoretical perspectives in studying NGOs as constituents of a global communication system. Informed by social network theory, the first perspective considers NGOs to exist not only as individual organizations that work independently by themselves but also as embedded members of a transnational network of NGOs that share universal values and

interact for the purpose of exchanging information in their working areas on various topics, such as sustainable development, human rights, freedom of expression, etc. (Castells, 2008). Each NGO is a part of a transnational network of NGOs working in the same issue area. By exchanging information about their research findings, field projects, and campaigns, NGOs attempt to let other organizations know about their work and also learn about the work of other NGOs. Having such information available to other NGOs often leads to networking opportunities to discuss specific strategies and results as well as to develop partnerships for joint advocacy and service. Interactions among NGOs were initiated and developed through international conferences and meetings in the past; however, an increasing number of NGOs are now in contact with each other through the Internet or social media (Srinivas, 2015). Therefore, this study considers NGOs' news and information production and distribution as a part of their information politics, which is defined as "the ability to move politically usable information quickly and credibly to where it will have the most impact" (Keck & Sikkink, 1999, p. 95).

Among a variety of hypotheses tested in social network theory, this study focuses on homophily effects, which is a phenomenon that is best explained by the expression "birds of a feather flock together" (Lazarsfeld & Merton, 1954; McPherson, Smith-Lovin, & Cook, 2001). Homophily effects on NGOs' collaborative patterns can have both positive and negative impacts on the effectiveness of the communication process as well as on the diversity and flow of information. If organizations with similar characteristics (i.e., type of organization, geographical location, membership with a large inter-governmental body) interact with each other, they tend to share the common meanings and languages needed to communicate the issue more effectively. For this reason, homophily among similar entities leads to "greater effects in terms of knowledge gain, attitude formation and change, and overt behavior change" (Rogers, 2003, p. 19). On the

other hand, homophily limits diversity and the amount of information being exchanged, as most of the knowledge and experiences might overlap among organizations with similar characteristics (Newman & Dale, 2005).

The second theoretical perspective views NGOs as independent organizations that function as dynamic entities, driven by their own agendas and the necessity to gain resources for survival and success (Pfeffer & Salancik, 1978). As a result, each NGO's organizational goals and needs shape its own communication behavior in various ways including its strategic use of interactive media platforms to reach other NGOs and the wider public. Resource dependence theory implies that an organization forges collaborative relationships based on the type and amount of resources it seeks to acquire through partnering with others. Such theorization offers a competing idea against the homophily hypothesis, as organizations with dissimilar characteristics are more likely to be in possession of the resources sought. Following this line of thought, NGOs' collaborative behaviors are expected not to support the homophily effect; rather, their inter-organizational network would comprise ties between dissimilar organizations rather than similar ones.

By combining these two perspectives, this study considers the structure of NGOs' inter-organizational network and dynamics as a product shaped by multiple factors that include the nature of their issue-specialty as well as each NGO's strategic use of interactive media platforms. While inter-organizational networks of NGOs are expected to lay a foundation for global communication, the strategic uses of interactive media platforms by individual NGOs are expected to reveal the quantity of global news and information being distributed by these organizations and the role of social media in fostering collaborative relationships among NGOs. For the purpose of relating the overall structure of inter-organizational networks of NGOs along with factors shaping – for

example, organizational characteristics such as issue-specialty and each NGO's communication behavior - this study takes a social network approach that envisions individual NGOs as nodes of a larger network in which NGOs are connected through interactions with other NGOs working in similar issue areas. The nature of NGO networks is "characterized by voluntary, reciprocal, and horizontal patterns of communication and exchange" and "the flow of information among actors in the network reveals a dense web of connections among these groups, both formal and informal" (Keck & Sikkink, 1998, p. 9).

PROCESSES OF AN NGO'S NETWORK FORMATION AND FACTORS THAT SHAPE THE OVERALL COMMUNICATION STRUCTURE AND DYNAMICS

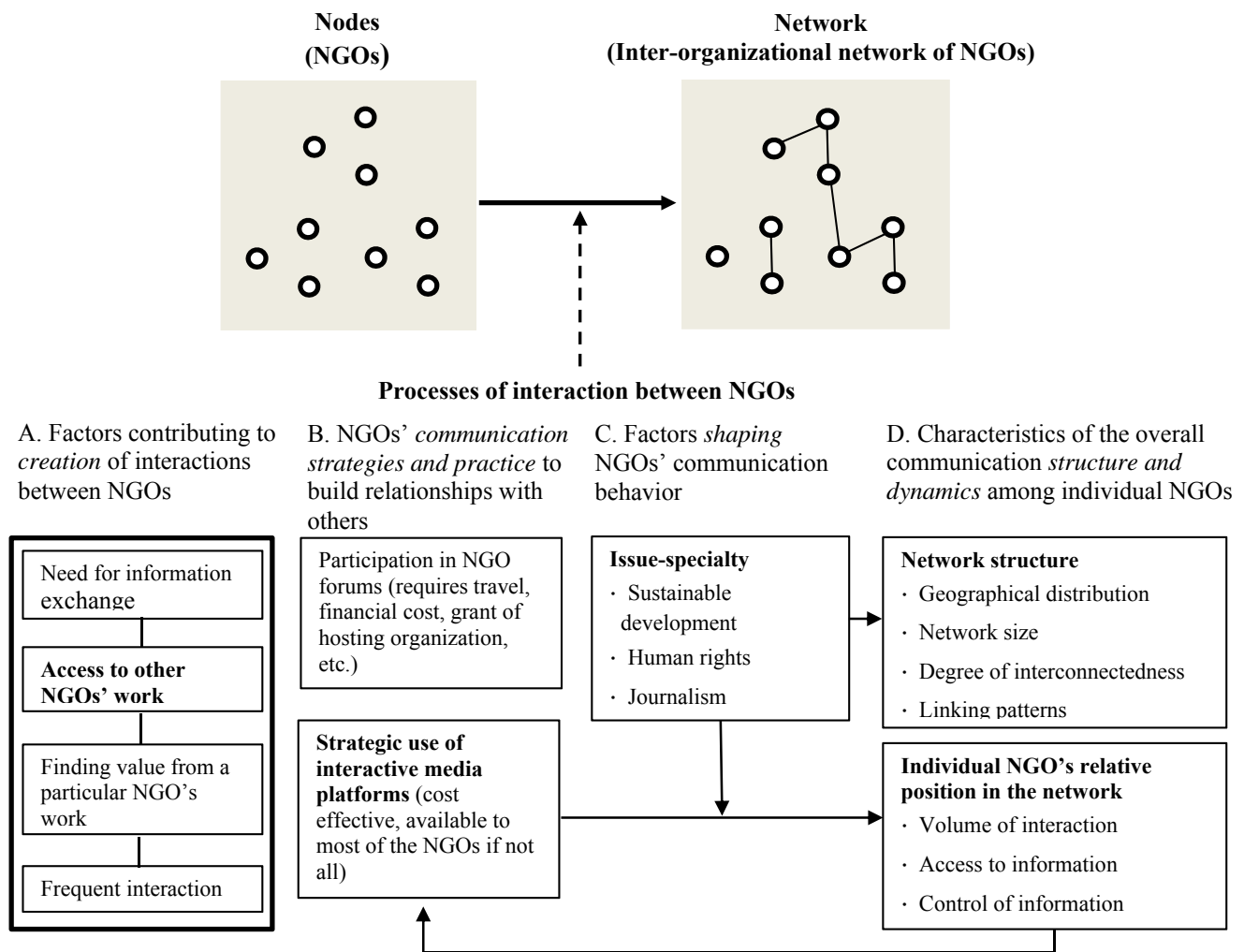
Figure 1 makes visual the process of an NGO's network formation and factors that contribute to its structure and dynamics. Without interaction with other groups, individual NGOs (nodes) are isolated with limited ability to collect information and distribute their message. Therefore, to overcome this barrier, information exchanges (networks) take place in formal and informal settings such that interactions facilitate the transnational flow of news and information. Two factors shape patterns of inter-organizational communication. According to differences in degrees of importance that individual NGOs place on information exchanges and specific issue areas, networks are expected to differ in terms of the geographical distribution of NGOs involved, the size of the network, the degree of interconnectedness, and linking patterns. However, it is not expected to be the case that individual NGOs working in a same issue area will have an equal volume of interaction. Rather, each organization is expected to make its own choice regarding other organizations to interact with based on the value and amount of information that other NGOs possess. As a result, it is reasonable to expect that some groups might have a higher volume of interaction with others that would place those

groups in a central position in the network. That position will likely correspond with their capability to access information from other groups (Sabidussi, 1966) thus allowing them to exert control over the flow of information (Freeman, 1977). Given the importance of gaining and maintaining this access and control of information for the individual organization's survival and success, individual NGOs are expected to continue efforts to make their organization's work known to other NGOs in the field. Among the most cost-effective ways to do this is to present the group's work through interactive media platforms to make themselves visible and establish informal networks with other organizations.

Following that model, this dissertation investigates the structural differences across three issue-specific NGO networks and examines also at the individual organization level, the extent to which each NGO's use of interactive media platforms contributes to its relative position in the network. In terms of the relationship between each NGO's social media use and its network position, this study suggests that informing other NGOs a group's work would contribute to future alliances with other international organizations. With a growing number of NGO communities worldwide, an increasing number of NGOs are learning about the activities of other NGOs through the use of the Internet and social media, often leading to formal partnerships (Srinivas, 2015). One of the features provided by interactive media platforms is allowing users to share the posting of other NGOs, including text, info-graphics, photos, audio, and video. In NGO communities, these exchanges occur as an established culture that naturally fosters collaborations among organizations that share similar interests and ongoing projects, and provides opportunities to participate in relevant meetings and events (R. Voorhaar, personal communication, March 23, 2015). In line with that overview, this study examines what differences may occur across issue networks in terms of how use of

specific types of social media may influence the relationship between NGOs and each NGO's network position. Network positions are considered to be associated with an NGO's level of interaction, access, and control of information.

Figure 1.1. Processes of an NGO's Network Formation, Communication Strategies, and Factors that Shape the Overall Communication Structure and Dynamics



To empirically examine the influence of issue-specialty on the overall communication structure, this study first compares structural characteristics across three networks formed around different issue areas regarding the geographical distribution of

the NGOs involved, the size of the network, the degree of interconnectedness, and linking patterns. Three different groups of NGOs working for sustainable development, human rights, and journalism were selected using a comprehensive list of NGOs included in the database of *Yearbook of International Organizations*. Among many other global public issues, sustainable development, human rights, and journalism were selected because those issues represent universal values shared across national and cultural boundaries and have been actively discussed in transnational settings in international conferences and summits. During the 20th century, the common interest of the international community focused mainly on industrialization and development of individual nation while in the 21st century the common interest has shifted toward sustaining the current stage of development for future generations and extending the rights of human beings in each nation and culture (World Commission on Environment and Development, 1987). Attention directed by NGOs toward journalism is included in this analysis as freedom of the press with information and expression viewed as core values to facilitate processes of global communication (United Nations Educational, Scientific and Cultural Organization, 2014). All three issue areas are relevant to the purpose of this study in terms of placing value on free and frequent flow of diverse information across transnational and cultural boundaries.

Beyond those commonalities, a comparison of the three issue areas offers an opportunity to examine the influence of issue-specialty on the structure of NGO communication networks as each issue places varying degrees of importance on “global” communication for the purpose of achieving a group’s particular goals. For example, the issue of sustainable development highlights the notion that what takes place in one part of the world affects the rest and the present situation will likely influence future generations (World Commission of Environment and Development, 1987). Therefore, sharing of

news and information at the global level is of greater importance for NGOs working for sustainable development so that their network, as a whole, could potentially show a higher level of interconnectivity regardless of the specific geographical region where a local NGO is located. On the other hand, the work of NGOs focused on human rights direct attention toward tackling political, social, cultural, and economic factors that suppress people's rights. Therefore, information exchange is likely to occur more frequently among regions and cultures that face similar political, legal, and cultural barriers. For groups focused on similar issues, the sharing of individual cases and corresponding strategies may contribute significantly to the fostering of news and information flow among NGOs based in under-developed regions. Finally, compared to sustainable development and human rights, which embrace a variety of specialized areas, the focus of NGOs that are concerned with journalism more narrowly attend to specific issues that relate directly to promoting the free flow of news and information (e.g., reporting on cases of media censorship, murder and abduction of journalists, and providing direct assistance to individual journalists in difficulty). Based on this pre-established framework shared by organizations involved in the news and information production, an analysis of the journalism network provides an opportunity to observe how different NGOs, a majority of which are press freedom advocacy groups and journalists' associations, also several not-for-profit professional journalism organizations, and a handful of groups related to research on media and communication, collaborate in the process of collecting and circulating news and information. Because the primary role of this network is to distribute news and information with a goal to promote and defend press freedom, and because it is not feasible for a single organization to cover a wide geographical area, it is reasonable to expect that analyses of the network structure and patterns of collaboration will provide specific explanations about the logic behind how an

inter-organizational network structure came to be the way it is and why organizations that are in central positions reached those levels. A possible scenario would be that NGOs in Western democracies assume the role of collecting and distributing information about cases of violation, thus revealing a higher volume of interaction, access, and control of news flow, while organizations located in other regions that focus on monitoring and reporting the cases are the ones to primarily interact with the NGOs in the West with a relatively low volume of interaction, access and control in the network—a clear division of core and periphery in the network.

In addition to analyzing the structure of inter-organizational networks, this study attempts to understand the dynamics within each network by identifying individual NGO's relative position, which is directly related to the organization's ability access to information (Sabidussi, 1966) and control over information (Freeman, 1977). Each organization's position in the network is determined by the number of relationships it makes with other organizations and the chances of establishing relationships are influenced by a variety of factors. Resource dependence theory suggests that organizations seek opportunities to interact with other organizations with a motivation to reduce the uncertainty that comes from a limited amount of resources they have and to complement the resources they lack by interacting with other organizations (Pfeffer & Salancik, 1978). Funding, labor, facility, information, expertise, closeness to the media, good reputation, access to policy-makers, and availability of networking forums are typical resources sought by NGOs (Themudo, 2000). In this respect, it is more likely that organizations that are perceived as resource-rich by other NGOs would have the capability and opportunity to collaborate with other organizations and be found in a central position in the network. However, studies also reveal that the amount of resources is not a single determinant of inter-organizational relationships. For example, NGOs

located in developed countries are more likely to work with each other than to work with NGOs based in under-developed countries (Shumate & Dewitt, 2008). In addition, NGOs that are in consultative status with the United Nations and World Bank are more likely to form relationships with each other (Murdie & Davis, 2011), which might demonstrate the fact that formal relationships with the inter-governmental organizations as well as NGO participation in related meetings might provide opportunities for NGOs to learn about each other's work and eventually develop collaborative relationships. In that regard, in addition to identifying each NGO's position in the network, their patterns of collaboration are also examined.

Finally, as analysis of each NGO's network position provides an opportunity to find out which NGOs are the key players and which ones are isolated in the network, this study examines to what extent each organization's social media use contributes to the interaction of one NGO with others. The level of interaction is assumed to correspond with the individual NGO's capability to access information from other organizations (Sabidussi, 1966), and to assert control over the flow of information (Freeman, 1977). Among various activities that might be explained as NGOs' communication practices, this study focuses on NGOs' use of interactive media platforms because those platforms are the most cost-effective and the most commonly used for the purpose of learning about the work of other NGOs and having one NGO's work known to others (E. Kelly, personal communication, March 19, 2015). Participation in NGO forums, which are often held as parallel meetings to inter-governmental events, require travel expenses as well as a grant from the hosting organization; however, to search and follow an NGO's work through its social media channels is more efficient in terms of time and expense for the purpose of learning about other NGOs' areas of work and to inform other groups about the particular NGO's interests and projects. Networking with other NGOs is one of the

important functions of new media use by NGOs (Seo, Kim, & Yang, 2009). While the rise of the Internet and the use of weblogs have to some extent revolutionized the way NGOs retrieve and distribute news and information, today's interactive media platforms and their networking features have made it easier to learn about and follow each other's work, thus increasing interconnectivity and enabling more frequent interaction among organizations (Saxton, Guo, & Brown, 2007).

OVERVIEW OF DISSERTATION

This dissertation attempts to further the understanding of the role of NGOs in the global news ecosystem by examining: (a) inter-organizational networks of NGOs; (b) power relationships within a network; and (c) each NGO's use of interactive media platforms for the purpose of distributing news and information relative to the individual group's position in the network. NGOs included in the analysis are international NGOs working in the area of advocacy and/or service. Along with advocacy-oriented NGOs, service-oriented NGOs are included in the analysis because even if the focus of their work might be on delivering goods and services, those groups are also able to provide news and information based on their research findings and stories about their projects. From a theoretical standpoint, this study integrates theories, concepts, and relevant literature from the various disciplines of international relations, organizational behavior, journalism, and communications research. From a methodological standpoint, the study employs a network and comparative perspective with a mix of quantitative (i.e., social network analysis, one-way ANOVA, and node-level regression) and qualitative approaches (i.e., in-depth interview). The theoretical framework, review of relevant literature, research design, findings, and implications of the dissertation are organized in the following chapters.

Chapter 2 reviews theories and literature relevant to approaching global journalism and communication, and it discusses where in such a framework NGOs' communication work might be located and how it might be approached. The chapter explains NGOs' role in the national and international system and how it might complement traditional journalism's limitations.

Chapter 3 discusses the recent phenomenon of journalism's blurred boundaries and its implications in relation to the changing media landscape. Recent trends of NGOs' news and information work along with current debates on NGOs' roles in the news ecosystem are introduced. Empirical research on this area is reviewed in terms of theoretical and methodological approaches and findings.

Chapter 4 introduces research questions asked in this study, which are raised based on the review of theory and literature from chapters 2 and 3. Questions are posed with regard to the structure of the inter-organizational network, linking patterns of the organizations and the relationship between each organization's characteristics and social media use as well as each organization's relative position in the inter-organizational network. As presented in the research questions, this study's findings will be compared across the three different issue networks.

Chapter 5 presents this study's methodological procedures. Following each stage of the study, the source of data, the operational definitions of variables, measures, and methods of analyses are introduced in detail.

Chapter 6 includes the study findings associated with each research question.

Chapter 7 provides a summary of the research study's major findings, followed by a discussion of its implications. The chapter concludes with a discussion on the study's limitations and future directions for research on NGOs' news and information work.

THORETICAL FRAMEWORK AND LITERATURE REVIEW

Chapter 2: NGOs and the Structure of Global Communication System

This study's purpose is to investigate the structure of NGOs' inter-organizational network, which is considered to be laying the foundation for a global communication system, and to examine their interaction with other NGOs working on three different issue areas in order to understand NGOs' role in the global news ecosystem and to draw implications for the emerging global civil society.

The previous chapter included a brief description of the context in which NGOs emerged as important actors in the international system and as mediators of global news and information with the potential to supplement Western news outlets' limitations in covering global news. In the international system, while the national political system's power has been decentralized, civic actors such as NGOs and grassroots movements have gained significance due to their technological abilities to distribute news and mobilize actions. Given the limitations of the so-called global media, which comprises major Western news agencies, this study suggests that among the non-professionals of news, such as citizen journalists, political bloggers, NGOs, and others, NGOs' efforts in the production and distribution of news and information would contribute to transforming the current system of global communication.

In order to place NGOs in the broad theoretical and conceptual framework of international communication, the current chapter provides an overview of theoretical approaches taken to study international communication, and it discusses how this particular study approaches NGOs within the existing paradigm of global journalism and communication research.

NGOs' NEWS AND INFORMATION WORK

NGOs are private, voluntary, not-for-profit organizations working for the public good. Although news-gathering and news dissemination is not a traditional function of NGOs, information has always been at the core of their work. It is as early as 1899 and 1907, during the Hague Peace Conferences, that a delegation of non-state actors wrote and published a daily newspaper at the conference site (Keane, 2003). NGOs' information gathering and sharing continued throughout the 20th century primarily through media publicity and campaigns. With advanced information and communication technologies, NGOs' communication work is becoming more professional nowadays. The primary purpose of their news and information gathering and sharing is to bring policy changes through advocacy and to provide service through fundraising (Keck & Sikkink, 1998). Aside from reaching their goals of policy change and providing service, the process of NGOs' communications work is significant for research and democracy, as it provides information, fosters debate, and mobilizes social movement.

For these reasons, the study of NGOs requires the following theoretical approaches: (a) Because NGO activities are transnational in nature, the study of NGOs ushers in a new area of research in international communication where the traditional actors used to be state governments, IGOs, and news agencies; (b) given the transnational nature of the information they provide, NGOs can be viewed as producers and mediators of global news flow; and (c) NGOs' communications work is relevant to the creation of a global public sphere, as it has the potential to initiate policy dialogues and to mobilize social movements at the transnational level.

This chapter includes a brief introduction of the traditional way of approaching international communication and theorization, and it discusses where in such a framework NGOs' communications work might be located and how it might be

approached. Next, in order to identify the role of NGOs' news and information work, the chapter explains NGOs' role in the national and international systems and how it might complement traditional journalism's limitations.

THEORETICAL BACKGROUND: A BRIEF INTRODUCTION TO THE TWO PARADIGMS CONCERNING THE STRUCTURE OF GLOBAL COMMUNICATION AND JOURNALISM

One of the reasons that NGOs' function as news and information providers is important in the study of journalism is because NGOs are expected to complement journalism's role by providing information about global issues. Through research in international communication, it has been reported that today's international reporting features limitations in both quantity and quality (Boyd-Barrett, 1980; Kim & Barnett, 1996; MacBride Commission, 1980; McPhail, 1983). The volume of coverage of the Global North (developed countries) has been much greater than that of the Global South (developing countries), which signifies that the concerns of the less privileged parts of the world have remained in their national boundaries or have been discussed only among development practitioners. Even if events in third world countries make it to the mainstream media, the coverage is known to be superficial and mostly reflecting the viewpoints of the West and not their own (MacBride Commission, 1980). The unbalanced and unequal coverage of the world stems from the fact that international news is primarily mediated by Western news agencies, and this is the result of the structure of international communication where a small number of Western countries and their news agencies dominate the global news industry. Because such a structure determines the news flow, the "global media" have been criticized for producing "poor-democracy" (McChesney, 1999).

Discussions about the cause of the unbalanced and unequal flow of global news and its relation to the structure of international communication may be found in research

and policy debates on the role of international communication. Historically, political power and capital were concentrated in Western countries, primarily the United States (U.S.) and European countries, which enabled them to set up international telegraph networks (Thussu, 2000). The development of the telegraph led to the creation of major news agencies in respective countries, which, in turn, created the core and periphery of today's communication structure. In addition, policy directions highlighting the role of international communication as a vehicle for modernizing third world countries made the one-way flow of news from the North to the South acceptable and appropriate (Lerner, 1958; Schramm, 1964). As a result, global news flow consisted of Western news agencies' sending information to the rest of the world, and countries in the periphery had limited interaction (Galtung, 1971).

To be more specific, related discussions on international communication can be divided into three stages: (a) free flow of information doctrine, modernization theory, and communication for development primarily suggested by Western countries; (b) discussions about dependency theory and structural imperialism initiated by third world countries; and (c) debates about the global public sphere and network society, which took place recently. In his discussion about globalization and news, Cottle (2009) introduced the two major approaches taken in the study of international communication: the global dominance paradigm [i.e., (a) and (b)] and the global public sphere paradigm [i.e., (c)]. For the purpose of this dissertation, it is appropriate to apply both the global dominance paradigm, which is grounded on the political economy tradition, and the global public sphere paradigm, which discusses the rise of a global civil society and cosmopolitanism. Although the two approaches have been discussed separately, in reality, both the legacies of the political and economic power relationships of the international system and the rise of a global civil society are observed.

GLOBAL DOMINANCE PARADIGM: A POLITICAL ECONOMY APPROACH AND THE STRUCTURAL CONSTRAINTS

According to the global dominance paradigm, the political, economic, and technological changes of the time have largely influenced international communication (Golding & Murdoch, 1997). Powerful states have dominated the communication channels, including the telegraph and satellite television, and Western news agencies have expanded their operations to the international level, including the third world. On the other hand, media outlets in developing regions could not take part in the new system of international reporting. Such structural constraints worked as an external force that controlled the circulation of news and its content. Most international news was covered by Western news agencies, such as the Agence France-Presse of France (started as Havas Agency), Reuters of the United Kingdom, and the Associated Press of the United States. In the international news market, journalists in the third world did not have the opportunity to provide coverage from the field and add their own perspectives to that of the Western media.

In addition to the communication structure that placed the Western media in a dominant position in international reporting, perspectives of the developed countries of the North and of IGOs, such as the United Nations Educational, Scientific, and Cultural Organization (UNESCO), also contributed to the one-way, top-down approach to international communication. For example, although it was meaningful that the U.S. doctrine of the free flow of information encouraged the free market and freedom of expression, it also opened up an opportunity for the already-dominant Western media to enter the markets of third world countries, whereas the media of developing countries did not have the capability to take part in international reporting (Thussu, 2003).

Moreover, supported by a political agenda to bring democracy and capitalism to the post-colonial independent countries, and also by the United Nation's launch of the 1960s as the Decade of Development, the role of international communication as a vehicle for modernization of the third world and the idea of communication for development were highlighted. International communication was regarded as the key to developing a country's modernization and development, and mass communication in particular was expected to play an important role. Scholars believed that when exposed to reporting from developed regions, third world countries would think about the traditional society and start working toward the goal of modernization (Lerner, 1958). Mass communication was regarded as a bridge to the world and as a platform for the North to transfer new ideas and values to the South (Schramm, 1964). Such perspectives were not only supported by the governments and scholars of the North but also by the governments of the South and various international organizations. During this time, a large body of "administrative research" was funded by the government in the US (Lazarsfeld, 1941).

However, in contrary to the expectations of modernization theorists, such an approach to international communication did not lead to the distribution of wealth in countries of the South. In Latin America, scholars argued that beneficiaries of the modernization approach to international communication are Western countries and Western news agencies rather than developing countries in the South (Thussu, 2003). Dependency theory brought new interpretations to the modernization approach to international communication by suggesting that transnational corporations are controlling the South through global trade (Frank, 1969; Mattelart, 1979). As a result, it has been argued that third world countries are led to greater dependency on the North, which has created a wider gap between the North and the South. Scholars have criticized the North for not respecting the cultural autonomy of the South and have suggested that this is a

cultural aspect of imperialism (Schiller, 1969/92). Moreover, with regard to the media, it has been argued that information and media imbalance is a result of a “colonization of communications space” (Boyd-Barrett, 1998, p. 157).

While dependency theory explained international communication by examining the relationship of the Global North and the Global South, Galtung (1971) provided additional perspectives about the elites in the South. He explained that two types of interactions take place in international communication: vertical interaction and feudal interaction. He argued that through vertical interaction, from the North to the South, power is exercised by the North to the South, and the benefits of such a system are given to developed nations. Feudal interaction refers to the existence of interaction between the core and periphery of the South but no interaction between the peripheries of the South. Applying this perspective to mass communication, he argued that the flow of news reflects the patterns of vertical and feudal interactions; news flows from the core to the peripheral states through news agencies, and journalists in the peripheral states are considered to be following the values transferred from Western news agencies. The feudal interaction perspective also applies to how developing countries do not have any interaction with one another if this interaction is not mediated by the news agencies of developed nations.

In response to growing concerns about the inadequate conditions of international communication, UNESCO published *Many Voices One World* (1980), also known as the MacBride Report. The report was prepared by the International Commission for the Study of Communication Problems, which consisted of members representing 16 countries around the world calling for a New World Information and Communication Order. The report provided remedies for the unequal access to information and communication. However, specific recommendations that the MacBride Commission

made were not reflected in the current system of international reporting, as the suggestions were considered to be putting censorship on the media and to providing ideas that are against the freedom of the press (Roach, 1987).

GLOBAL PUBLIC SPHERE PARADIGM: AN APPROACH TO THE EMERGENCE OF A GLOBAL CIVIL SOCIETY AND TRANSNATIONAL NETWORKS

Contrary to the global dominance paradigm, the global public sphere paradigm applied Habermas' concept of the public sphere (1989) to the globalized era. While the global dominance paradigm and its political economy approach to international communication identified state governments and inter-governmental organizations as primary actors in addition to identifying the media outlets mediating the information, the global public sphere paradigm recognized the presence of NGOs, although their mediation of news and information was not specifically mentioned; instead, scholars in the global public sphere paradigm paid attention to the transnational flow of culture, the emergence of networks, and the rise of a global civil society and cosmopolitanism (Appadurai, 1996; Castells, 2008; Volkmer, 2003).

It is within this framework of the global public sphere paradigm that NGOs can be approached in the theorization of international communication and journalism. Considering that NGOs identify themselves as working to address issues of global concern, such as the environment and human rights, it is expected that information, cultures, and values related to certain issues are being transferred through interactions among NGOs as well as through their news and information work. The implications of NGOs' communication work must be considered beyond the mere distribution of information, as their communicative practice is becoming more professionalized toward the values of journalism (Powers, 2015).

Journalism and the Civil Society

Journalism, which professional media organizations traditionally practice, functions as a bridge between the state and its citizens. Typically, a democratic society comprises the state, the market, and a civil society. Individual citizens belong to the civil society, where they have the right to information and expression. In this process, the importance of journalism is illustrated by the phrase the “fourth estate.” The press monitors the three branches of the government, delivers information to its citizens, and offers opportunities for discussion. Through media reports, policy makers and politicians raise their voices, and the responses of private companies and individual citizens are also reflected.

As an outcome of that process, it is often the case that policy changes occur. Even though political communication is an important part of journalism, its function is not limited to politics. In a broader sense, journalism introduces the world outside of one’s daily life to the citizens, and by doing so, individuals may be more informed about and interested in their communities and the public good. Therefore, journalism’s role is important for a healthy democracy and the civil society. In the era of globalization, however, there has been a significant change in such a system of governance and in the transfer of information to the civil society.

Civil Society in a National Political System

Traditionally, two schools of thought exist in defining civil society. While both schools accept the idea of civil society as a counterpart of the state, where citizens exchange ideas and take collective action according to their interest against the ruling powers, the two schools have different opinions about: (a) the inclusion of the market and (b) the range of organizations included in the civil society. While including or excluding the private sector in the idea of civil society does not make much difference in terms of

how it is defined, the two schools of thought are clearly different in their explanations of the civil society's purpose and specific role: maintaining diversity versus social change. Furthermore, the range of organizations included in the civil society differs between the two schools. While some scholars consider a wide range of associations as the civil society, others focus only on voluntary, non-government, not-for-profit organizations driven by public interest.

Contemporary scholars such as Walzer (1991) offer a broad definition of civil society, such as “the space of uncoerced human association and also the set of relational networks—formed for the sake of family, faith, interest, and ideology—that fill this space” (pp. 291-292). This definition does not explicitly state that the market should be excluded from civil society and only broadly defines civil society as a realm residing somewhere between the government and family for the sake of protecting and extending one's interest (White, 1995). Therefore, a wider range of associations are considered civil society members; formal groups such as trade unions, churches, professional associations, and informal networks are included. Although the common idea of advocating individual interest exists, this school of thought is less interested in defending citizen interest and taking influential actions against the state. Rather, it highlights the need to embrace differences and diversity within a society.

On the other hand, a more traditional and narrower definition of civil society emphasizes the importance of its function of checks and balances against the state and the market (Cohen & Arato, 1994; Habermas, 1996). They locate civil society as a public sphere independent from the state and market, where people exchange ideas and take action in order to defend the public interest and aim for specific policy changes. Citizens are considered to be more active in terms of their voluntary participation through non-governmental, not-for-profit entities. The role of non-governmental, not-for-profit

organizations working for the public interest, as opposed to the benefit of individual members of the society, is highlighted in facilitating the process. Scholars in this school of thought do not agree with those who argue that political associations could perform the role of civic associations (Putnam, Leonardi, & Nanetti, 1993). Rather, the principle of non-partisanship is used to foster a civil society from the grassroots level, supporting the assumption that the driving force of civil society comes from the grassroots community (Carothers, 1999; Tocqueville, 1969). Civil society defined by this school of thought restricts its member organizations as non-governmental, not-for-profit, non-partisan associations working for the public interest of the society.

Globalization, Civil Society, and NGOs

Under the influence of globalization, scholars encountered another phase of re-conceptualization for the idea of civil society. Traditionally, international cooperation has been facilitated through IGOs where national governments serve as their members. Some of these organizations focus on issues shared by countries located in the same geographic region (e.g., European Union), while other organizations represent a broader region whether their interest is in a variety of issues or in a primary area of work (e.g., United Nations, International Monetary Fund). This traditional system of international cooperation facilitated through IGOs has contributed to addressing key global issues such as conflict resolution, disaster relief, sustainable development, human rights, freedom of expression, etc. With regard to their purpose of alliance, while some organizations cooperate for the purpose of fostering economic development (e.g., World Bank), some other groups may stand as military alliances (e.g., North Atlantic Treaty Organization).

IGOs, however, are not without limitations. Given that members of IGOs represent a nation state, they are most likely to prioritize national benefits over global

ones; the primary purpose of a national government is to act on behalf of its citizens rather than providing service for the collective global good. Therefore, in cases where a conflict of interest exists between the benefits of the state versus the global good, IGOs may not be in the position to serve the global community. This is when NGOs' role in the global civil society is clearly revealed.

In order to address common interests and issues such as climate change, financial crises, terrorism, and other topics, the state and the private sector as well as non-governmental, not-for-profit, non-partisan entities began to collaborate, as it was apparent that a single state is unable to resolve such issues on its own (Castells, 2008). It was the nation states that first formed regional groups such as the European Union or gathered in larger groups through other IGOs such as the United Nations. However, eventually, non-government entities, the private sector, and NGOs such as Amnesty International or Greenpeace partnered with the IGOs while doing their own work to bring service and advocacy.

Following the more traditional and strict definition of civil society, the "global" civil society may be defined as an association of entities other than the nation state and the private sector. It is similar to how the civil society is identified at the national level: non-governmental, not-for-profit, non-partisan entities. The only difference between the local civil society actors and the global ones is that the latter works at the transnational level (Bebbington, Hickey, & Mitlin, 2008; Beck, 2006).

Scholars conclude that the "global" civil society comprises NGOs (Castells, 2008; Kaldor, 2003). An NGO is defined as an "organization that is not established by a governmental entity or intergovernmental agreement" (United Nations Economic and Social Council Resolution, 1996, p. 54). This separates them from any government entities' being involved in its formation. Although it includes "organizations that accept

members designated by governmental authorities, provided that such membership does not interfere with the free expression of views of the organization” (United Nations Economic and Social Council Resolution, 1996, p. 54), NGOs are able to work independently, free from the influence of nation states. This draws distinctions from how IGOs are formed and work: a body “based on a formal instrument of agreement between the governments of nation states, including three or more nation states as parties to the agreement, and possessing a permanent secretariat performing ongoing tasks” (Union of International Associations, n.d.).

Some of the concrete places where we see the global civil society at work are global forums held at the transnational level. For example, during United Nations-sponsored events such as the World Summit on the Information Society, NGOs are allowed to attend the meetings with full partnerships with the IGO (Raboy, 2004). Furthermore, outside of those summits, with their expertise in globalized topics, more than 4,000 NGOs hold consultative statuses with the United Nations Economic and Social Council, collaborating with one another as well as with nation states and IGOs (United Nations Economic and Social Council, 2014). NGOs are often referred to as “the fifth estate” (Eizenstat, 2004), as they influence policy-making and form the civil society. It is not always the case that an NGO can successfully challenge and have influence over the government’s policy decisions. By forming alliances and coalitions, however, the situation often changes. The term “boomerang effect” explains such a case where a small NGO whose recommendations were rejected by the government was able to overturn the result by collaborating with other influential NGOs (Keck & Sikkink, 1998). In this regard, inter-organizational collaboration is essential for the effectiveness of NGO work and potentially for the betterment of the globalized society. For individual NGOs, a common purpose of inter-organizational collaboration is to share resources in order to

address and resolve a common concern, and the collaboration of these organizations contributes to the formation of a vibrant global civil society.

Focusing on the fact that NGOs collaborate with one another and create vibrant grassroots communities around the globe, scholars such as Keck and Sikkink (1998) also introduced the idea of the global civil society as being networks of NGOs. Conceptual definitions of a so-called network society and the idea of studying the global civil society using the network perspective will be explained in the following section.

INTER-ORGANIZATIONAL NETWORKS OF NGOS AS SETTING THE STRUCTURE OF A GLOBAL CIVIL SOCIETY

Discussions about the network society began in the context of globalization and social change. Just as a common definition of globalization is “the intensification of worldwide social relations which link distant localities in such a way that local happenings are shaped by events occurring many miles away and vice versa” (Giddens, 1990, p. 640), the networked aspect of globalization, or the relational aspect that connects the world to communities, is important in observing a global civil society. Apart from the existence of NGOs, it is the relations and links—created by the time-space compression, an outcome of advanced transportation and communication technologies—that facilitate the emergence of a global civil society (Giddens, 1981; Harvey, 1989).

In other words, the networks of NGOs lay out the structure of the global civil society. While discussions regarding the differences in a civil society in a national context and in a global civil society focused on defining the terms by looking at the actors, the concept of a network society helps us to understand the structure of the global civil society. For example, in order to better explain the multidimensional social change that takes place under globalization, Castells (2000) introduced the concept of network society and defined it as “the social structure of the information age” that forms the new

society (p. 695). In this new society, important interactions such as financial, informational, knowledge, business, and other related transactions occur through the networks.

The term “network” may be considered in two ways. The traditional concept of social network may be used to explain how individuals, groups, communities, organizations, and societies create and maintain relationships in order to utilize resources from one another (Granovetter, 1985; Wellman, 1988). In addition, communication networks that the media create and maintain as well as the electronic networks that the Internet enables are emphasized nowadays (Castells, 1996; Van Dijk, 1991).

The concept of network society furthers the understanding of the global civil society by explicitly demonstrating how resources are distributed and utilized to foster social change by NGOs. If applied to particular methods of examining these networks—for example, following the traditional concept of social networks—a structure of the global civil society may be laid out by observing the inter-organizational networks of NGOs (e.g., who collaborates with whom). On the other hand, observing the distribution of electronic networks (e.g. analysis of hyperlinks: who linked whom on their websites) may be an alternate way if one is more interested in online networks than in offline ones. A combination of the two may also be an appropriate way of studying NGO networks considering the following aspects: An examination of inter-organizational collaboration in offline networks would reveal formal partnerships and networks between NGOs, while analyses of online linking patterns may be more efficient in observing the processes of decentralization of the resources/roles that may be difficult to examine through the existing structure (Castells, 2000; Castells, 2008). Studies conducted in such ways, following the network perspective, may help to further our understanding of the global

civil society by making the patterns of the flow of informational resources among different actors more apparent.

Network Approach

What scholars envision about the globalized society is that the world may have the potential to work together on a planetary scale through the global network (Castells, 2008). In this regard, it is reasonable to employ the network perspective for investigating the realm of NGOs.

By using a social network approach to analyze the networks of individuals, groups, or organizations (nodes) and the relations among each of them (ties), researchers can study the structure of the network as a whole as well as the individual actor's patterns of networking (Wasserman & Faust, 1994). Each node's relative position in the network reveals the extent to which an individual organization is benefited or constrained by its relations with others (Wellman, 1988). While research studies taking other approaches, such as ethnography or content studies, have their own merits, investigations of inter-organizational network structures and the organizational behavior of interacting with others are best conducted using the network approach, as it captures the details that are easily missed.

Studies so far that have employed network perspectives regarding collaborations among IGOs such as the United Nations and NGOs that are civil society actors add insights for further understanding the global network society. While IGOs tend to collaborate more with IGOs than with NGOs (Atouba & Shumate, 2010), among the networks of NGOs was a North/South divide when NGOs related to HIV/AIDS were examined (Shumate & Dewitt, 2008). This signifies a limited flow of resources from established organizations to ones that were recently formed, and from developed nations

of the North to developing ones in the South, which is a similar pattern of the distribution of international reporting. Some hope that evolving social media could change the situation for NGOs located in the Global South; however, although technology itself is a great resource that is high in demand, it is also true that it remains unavailable in some parts of the world. Although the emergence of NGOs has generated the positive outcomes of bringing about transnational collaboration between the Southern and Northern hemispheres of the globe, the existing power relations stem from resource dependence, which has created another challenge.

RESOURCE DEPENDENCE AND FORMATION OF INTER-ORGANIZATIONAL NETWORKS

Along with the social network perspective, this study employs resource dependence theory in order to explain the reason that NGOs form networks and collaborate as coalitions. With the common goal of tackling the problems around the globe, NGOs work together by exchanging knowledge and information, supporting one another financially and physically in addition to planning and carrying out projects together. As a single organization cannot perform its work without support from others due to resource constraints, it is important for NGOs to be able to establish and maintain relationships with other NGOs, which eventually leads to the formation of networks at the local, national, and transnational levels.

Hardy, Phillips, and Lawrence (2003) defined collaboration as “a cooperative, inter-organizational relationship that is negotiated in an ongoing communicative process, and which relies on neither market nor hierarchical mechanisms of control” (p. 323). Following this definition, such relationships are initiated solely because of organizations’ needs—the need for human, social, or financial resources. Benson’s (1975) classical work on political economy posits that organizations are bound to their positions in the

network, which determines their ability to take control of the flow of scarce resources. On the other hand, Pfeffer and Salancik (1978), in their theory of resource dependence, suggested that organizations can and intend to buffer themselves from the existing position in the network by creating links with other organizations.

In that sense, for some NGOs, their pursuit of journalism and interaction with other NGOs may be motivated by their intention to make up for the disadvantage coming from their position within the network. If that is the case, NGOs located in the periphery of their respective networks will be able to obtain a better position in the network by being active in their news and information work. A survey of NGO communication representatives found that the most important function of using digital technology is to let others know about their organization, raise funds, and interact with journalists and the public (Seo et al., 2009). Such findings explain that individual NGOs adopt online interactive platforms for the promotion of their work, fundraising, media coverage, and public relations, which are related to their organizational goals and needs.

Selection of Inter-organizational Networks Based on Issue Area

Within the framework of the theorization of global journalism and communication, this study examines three specific issue areas in order to examine the structure of the inter-organizational network, organizational linking patterns, and NGOs' utilization of social media to draw implications of NGOs' news and information work for a global civil society. Among many other global public issues, sustainable development, human rights, and journalism were selected because concerns regarding all three issues are commonly shared across national and cultural boundaries and have been actively discussed in transnational settings and global forums.

The term “sustainable development” is widely explained using the definition provided in the United Nations World Commission on Environment and Development’s report, *Our Common Future*. Sustainable development is defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations World Commission on Environment and Development, 1987, p. 43). The idea of sustainable development considers the world as a “system” that connects time and space, with a decision or policy from the current generation affecting the latter, while a hazardous environment condition in one part of the world affects the rest (International Institute for Sustainable Development, n.d.). Under this conceptual framework, more specific issues such as agriculture, poverty, climate change, energy, and globalization are being discussed and addressed.

Human rights is another global value widely shared by the global community. While the issue of sustainable development is more focused on environmental conditions and its potential influence on the well-being of the world population, the field of human rights is geared toward the dignity and fundamental rights of people. It finds its origin from the time during the World War II, when the United Nations Charter was complemented by the United Nations General Assembly’s adoption of the Universal Declaration of Human Rights in 1948 with none of the nation states voting against it. The Universal Declaration of Human Rights outlines the fundamental rights of people, ranging from the right to life and the protection of law to the right to freedom of expression, association, etc. (United Nations General Assembly, 1948).

Journalism in the context of a global framework represents the values of freedom of the press, expression, information, etc. Among the United Nations agencies, UNESCO is the organization that upholds these values. Within the international system, values associated with journalism—free press, expression, and information—are considered

crucial in fostering development, addressing the importance of human rights as well as nearly any other global issue.

Following the global public sphere paradigm of research on international communication and journalism, this chapter discussed the implications of the rise and expansion of NGOs working with international frameworks. Inter-organizational networks formed around NGOs are considered to be setting a structure of a global civil society that is not bound to national or cultural boundaries. Traditionally, civil society in a nation state is defined as a public sphere excluding the government and the market where citizens take on the role of checks and balances and defend their values and thoughts for the public good. During this process, non-government, not-for-profit organizations and the media facilitate the discussions. Following this concept, for the purpose of this study, a global civil society is referred to as a networked society with non-government, not-for-profit organizations following an international framework. The role of a global civil society is important, as it offers a platform of discussion at the transnational level, which includes voices from different nation states as well as perspectives from the grassroots level with the shared goal of resolving some global issues, such as terrorism, financial crises, and climate change. In an effort to contribute to the resolution of global issues, NGOs focus on various tasks such as information gathering from the field, raising awareness, fundraising, relief work, and research and analysis for policy change. In this process, NGOs are becoming more active in sharing the news and information they have gathered, which implies their role in the realm of global news, discussed in the next chapter.

Chapter 3: NGOs in the Global News Arena

The previous chapter outlined the two major paradigms for research on international communication and journalism — the global dominance paradigm and the global public sphere paradigm — and introduced that the current research applies social network and resource dependence theories to expand the theoretical discussions on communicative behaviors among NGOs. While discussions in the previous chapter largely focused on conceptually defining inter-organizational networks of NGOs as forming a structure of global civil society, this chapter turns to the specific roles of NGOs in the global news arena in light of the recent trend of their collection and distribution of news and information. As discussions in the previous chapter suggest, NGOs are playing an important role in the global civil society by producing and distributing global news and information that might complement the limitations of the legacy media. They are considered to be experts in their working areas, and as their communication work has become more professionalized in terms of providing evidence-based reporting rather than mere promotion of their organizations, it is worthwhile to examine their role as mediators of global news and information with the expectation that they would contribute to today's international and public affairs reporting. Through review of the literature on today's changing media landscape under the influence of globalization and digitization, this chapter attempts to explain NGOs' news and information work in the global news arena (Reese, 2008).

BLURRING BOUNDARIES OF JOURNALISM AND NGOs AS NEWS ENTITIES

Due to the globalization and digitization of the media landscape, the boundaries of journalism have become more arbitrary. In order to better explain where NGOs are positioned in this space, in contrast to the traditional boundaries where professional

journalism used to take place, this study uses Reese’s typology of press-state actors, which illustrates the four areas of emphasis that researchers used to understand the nature of news (Table 3.1). As the top-level row indicates, the dominant view in studying the nature of news is to take the research into the institutional level; journalism researchers paid more attention to the media side, while political scientists focused more on the state. Even though the citizen level at the bottom row does not have a very long research tradition compared to that of the institutional level, the journalistic role of citizen bloggers and social movements, for example, is receiving more attention from researchers in journalism, sociology, and political science nowadays.

Table 3.1. Typology of Press-State Actors (Shoemaker & Reese, 2014)

Arena	Journalistic	Political
<i>Institutional Level</i>	News professionals	State, officials
<i>Citizen Level</i>	Bloggers	NGO, social movements

Among the entities in the four compartmentalized areas of emphasis in this typology, NGOs are underexplored in studies by journalism researchers, media scholars, and political scientists. Discussions about NGOs’ journalistic practices so far include both positive and negative implications. Two views in particular have dominated the debate about the growing role of NGOs in the news ecosystem. From an optimistic perspective, NGOs are seen as complementing international news coverage with otherwise unavailable information and filling gaps of today’s unbalanced news coverage of the world. From a less optimistic perspective, NGOs’ news work is viewed as problematic in that NGOs are primarily advocacy groups with their own agendas that may contradict journalistic values and norms. However, findings from empirical research suggest that the nature of NGOs’ communication behavior and its implications may not be fully explained or evaluated by either of those two viewpoints.

In the early stage of research on NGOs' news and information work, undertaken in the mid- to late-2000s, scholars focused mainly on NGOs' interaction with journalists, leading to a less optimistic view about the contribution of NGOs' communications work in reporting international affairs. Specifically, studies found that NGOs provided news material that complied with the "media logic" of the mainstream media's norms and values with coverage driven by sensationalism, celebrity endorsement, and media-targeted events. As a result, the NGO-posted news material reinforced existing patterns of the media coverage and marginalization of certain issues (Cottle & Nolan, 2007; Fenton, 2010). However, given that an NGO's interaction with media professionals currently constitutes only one aspect of their news and information work, the scope of research needs to be extended to evaluate interactions with other NGOs as well as with other interested individuals in sharing of news and information with the goal of more fully comprehending the implications of NGO presence in the news ecosystem. Especially, research needs to be mindful that NGOs' interaction with journalists has as its primary purpose the sharing of information about the organization, its work, and knowledge about particular issue areas. From the perspective of the NGOs, it is reasonable that the expected output of their interaction with journalists is to gain media attention for their story, including name and message recognition. Given the long tradition of a symbiotic relationship between NGOs and journalists, which includes a line of work that ranges from public relations to information subsidy, tendency of NGOs to follow the media logic in their interaction with media professionals may be unavoidable and, in fact, necessary for NGOs to achieve their goals.

When scholarly attention is directed toward NGOs' overall news and information work, rather than just their relationships with journalists, more recent studies suggest it is hardly the intention of NGOs to provide daily news coverage for the region where they

are based. Even when NGOs aim to produce evidence-based reports that include different viewpoints, the content is nonetheless guided by the value of advocacy (Powers, 2015). Therefore, if NGOs' news and information work is observed through the lens of expectation that they would seek to replicate the way journalists process information and make news, then misunderstandings about the nature of the NGOs' work may arise, leading to an underestimation of its overall contribution to the global news flow. Based on that observation, scholars' selection of a vantage point for observing and examining NGOs' overall communication behavior remains a challenging yet necessary task for comprehending global news flow and NGOs' contribution to the global civil society.

Therefore, in light of these discussions about the implication of studying NGOs as news entities, it is necessary to be mindful about the fact that NGOs are part of a broader structure of network society, which is the reason that this study applies a network approach. In addition, in order to further understand their organizational behavior of collaboration, where exchange of news and information is at the core of this relationship (Keck & Sikkink, 1999), along with their dependence on necessary resources for the survival and success of the organization, it is important to understand in what other contexts NGOs' news and information work is gaining attention in the field of journalism.

NGOs' FUNCTION AS NEWS ENTITIES

In addition to the growing news-making efforts of NGOs, a factor that contributes to discussions about the potential as well as the importance of NGOs' function as news entities, is the changing media landscape within the realm of international reporting. At the same time that legacy news outlets have reduced the number of foreign correspondents and closed many of foreign bureaus due to financial constraints, NGOs

have expanded their influence in terms of financial resources and international outreach (Karajkov, 2007). For many NGOs, foreign chapters and campaigns have been organized, all of which gives NGOs access to sources and events on the ground that the legacy media are no longer able to cover. During the Haiti earthquake in 2010, for example, it is reported that initially in Haiti there was only one Western foreign correspondent, working for the Associated Press so that NGOs covered the incident until professional journalists arrived (Duncan, 2011). Later, when news agencies left the scene, NGOs, such as the International Medical Corps, CARE, and Save the Children that had employed former reporters from media outlets such as NPR, CNN and the *Los Angeles Times*, continued to cover the aftermath on the ground (Abbott, 2009).

More recently, in response to threats of abduction and murder faced by foreign correspondents and freelance journalists in conflict zones, discussions are underway to determine how best to cover international affairs in the future, including the use of citizen journalists, advocacy organizations, news start-ups, and the United Nations communication department (Geary, 2014). Given the possibility of further decline of international reporting in today's news media, discussions among media scholars, journalists, and NGO practitioners are focusing on what options might or might not work when NGOs and journalists work together on international reporting (Frontline Club London, 2015; Magee, 2015).

So far, media professionals and scholars observed and described this trend as NGOs becoming “newsmakers” or “news coordinators” (McGann, 2010; Price, Morgan & Klinkforth, 2009; Tsui, 2009). In other words, NGOs' interactions with the media professionals are commonly described as NGOs benefiting the media by becoming sources or the makers of “news” with their expertise. In addition to this current literature, NGOs' news and information work may be understood further in the context of

digitization of the media in the news industry and the emergence of Web 2.0. Just as non-professionals of news such as citizen journalists and political bloggers are becoming important sources of information, NGOs are also taking on journalistic roles with the interactive platforms that are made available to the public. Considering that their main channel of distributing news and information is based on online media with social networking features, NGOs' news and information work may be considered as an alternative form of global media in the sense that national boundaries do not limit their distribution of news. Noting that there is not a single media outlet that could be considered as truly global in its operation, this study suggests that NGOs' news and information work is opening up an opportunity to observe how news is being made and distributed at the transnational level.

DIGITIZATION OF NEWS AND INTERNATIONAL AUDIENCE

Innovations and challenges experienced by the news industry offer explanations as to how NGOs came to be important mediators of news at the transnational level. The role of digital media is changing the way news is created and distributed on a global scale at the industry level and at the consumer level.

The news industry has experienced significant changes in its way of reporting, presenting, and distributing news through digital media. First of all, the media industry benefited from computer-assisted reporting, which added convenience to the journalism profession by enabling searches for sources and information through the Internet. In terms of distribution of news, it is now much faster and easier to reach more distant regions through the Internet. International reporting was also made easier with digital media, which is not limited to the Web but also includes social media. If the observation is limited to the access and distribution of news and information, it is fair to say that

digital media has contributed to the transnational news flow. However, the story is different if the focus is on the interaction of the media professionals and their audience. As audiences now have the same privileges of access to sources and information as well as a platform for publishing their own views on news and public affairs through the digital media, journalists' instrumental value, which includes functional, emotional, and expressive values, has decreased (Picard, 2009). This influence is not only limited to the national level but also applies to the transnational level. Due to the reality that its audience is no longer relying on their reporting and writing as much, which may be represented by the fall of newspaper print editions, the media industry has started discussing detailed strategies that might work to maintain revenue from subscription and advertising. In this discussion, there was no exception, although some organizations were in better positions than others; even *The New York Times* shared the agony (Blodget, 2009).

The most important discussion that took place during this time was regarding online news. From the industry point of view, the news industry realized that its audiences are relying on news aggregators like Google or Yahoo instead of coming to their own Web editions, and that this affected their overall traffic, which in turn influenced their ad revenue. Although some of the organizations introduced online subscription fees, this did not work out well except for the *Wall Street Journal*, which introduced the system in the mid-2000s with the financial information published in its paper.

In the meantime, audience behavior has been observed and examined. Among the consumers of news and other digital products, a “good enough” culture was found (Capps, 2009). It refers to the tendency of consumers to look for products that are readily available and with low price regardless of the quality. When applied to online news,

research found that while print news is a normal good, online news is an inferior good, which emphasize the current debate about the subscription model as a source of revenue for the news industry (Chyi & Yang, 2009). If this was the case for local or national news, it is plausible that the market for international news may not be in a better situation — or may even be in a worse one. Although consumers of international news were granted access to a variety of Web editions, that was the only change that could be identified at this stage. Furthermore, we can easily predict how the world audience is changing its information-seeking behaviors due to information surplus (Chyi, 2009).

It was even before this detailed discussion on the online news environment that major news organizations began implementing their plans to customize their news for different regions around the globe. News organizations became more aware of the audiences outside of their national boundaries and started developing their existing online editions under the name of global or international editions. However, Chyi and Sylvie (2001) concluded more than a decade ago that it is still the case that “the medium is global; the market is not,” which leaves the question of whether NGOs’ news and information work and their audiences are any different. In line with this view, this study is conducted under the assumption that NGOs’ news and information production and distribution is targeted at interested individuals, media professionals, NGO practitioners, and policy makers rather than the wider public. With regard to the growing disinterest of general audiences in international news, there have been discussions about “compassion fatigue” (Moeller, 1999); however, up-to-date information about international affairs is still actively sought by interested individuals, media professionals, NGO practitioners, and policy makers.

NGOs' COMMUNICATION PROCESS IN THE ERA OF WEB 2.0

In the era of Web 2.0, NGOs' use of interactive media platforms is considered as facilitating interactions of relevant actors as well as providing platforms for collective thought, communication, and action for those with shared interests and goals. In that sense, NGOs and the traditional media are different in their nature as news and information providers (O'Reilly, 2005; Postigo, 2011).

With respect to the role of the Internet as a facilitator of interactions, it is important to note how the Internet facilitates a variety of interactions via information decentralized without a middleman. Traditionally, NGOs placed emphasis on communicating with stakeholders and media organizations for the purpose of literally "advocating" for their positions on issues of their interest. Therefore, the so-called public relations task was the primary focus of the organization. Much of such communication was carried out through protest letters to stakeholders and/or press releases to media organizations and also by hosting campaigns and media events. Advocacy groups were knowledgeable about the need of holding actual "events" or "programs" for the purpose of drawing the attention of the public through media coverage. It was also important for advocacy groups to ensure that they have enough volunteer workers for person-to-person communication at the site of their campaigns and events. Based on this example, it is possible to imagine how many more additional steps and middlemen were involved for NGOs to raise their voice with attempts to have their messages heard.

However, with the development of the Internet, especially in the time of Web 2.0, communication processes of NGOs have become less dependent on media organizations. With respect to their relationship with media organizations, in the past, NGOs remained information providers to the media without knowing whether the information they offered would be published and delivered to their stakeholders and the wider public.

However, with the Internet becoming even more accessible with Web 2.0, which came with tools like RSS feeds, Facebook, Twitter, YouTube, and other applications for spreading their messages, NGOs are able to be the publishers of their own news and information to anyone with access to the Internet. In this sense, the Web 2.0 may be seen as a “set of social relations” (Postigo, 2011) where interactions are facilitated by online tools and specific roles are given to information distributors, observers, receivers, and others in each interaction (Welser, Kossinets, Smith, & Cosley, 2008). In line with this view, NGOs take many different roles at the same time — e.g., observers of the issue, sources of information, distributors, and initiators of further events. It is true that the legacy media and NGOs took similar roles as providers of news and information before the time of the Internet, but current research shows that NGOs are shifting their roles to be “experts,” “consultants,” and even mediators of news and information in their relationship with the media, going beyond their role of being “sources” for news (Ollion, 2010).

The role of NGOs in the news ecosystem goes even further when there is a chance to establish a platform for collective thinking, communicating, and action. This mode of use is different from being a facilitator of interaction, which is discussed earlier in this section, as that refers to a simple initiation of the interaction. It is often the case that NGOs have further potential, through the delivered message, to be able to harness collective thought, communication, and action through initiation of the dialogue. Collective thinking and communication may occur once an initial “tie” or a membership of some kind is established between an online site and an individual, and Web 2.0 applications could be utilized to encourage and advance a particular view of the issue (Ward, 2011). Collective actions also occur directly through the messages from the NGOs, although the process may be accompanied by media messages. This is

demonstrated in many of the real-world events, such as the role of NGOs in disaster relief at the local level, not to mention these attempts on global scale disasters. The primary role of the Internet in this case is that the initiation of the interactions attempted by NGOs through Web 2.0 devices creates a space for interested individuals or groups to gather, think, and act upon their shared values.

Such discussion naturally leads to the third implication of NGOs' utilization of interactive media platforms. Different from the traditional role of the legacy media, NGOs do not only provide news and information; they also have a positive role of reproducing the message and discussion among those who have shared interests and values. It is true that the message could also be reproduced through the media; however, the magnitude of the impact must be perceived differently. In other words, once an NGO initiates a dialogue on specific issue areas through interactive media platforms, when it gains enough attention to form a vibrant community of individuals, the discussion among those individuals with shared interests not only remain among themselves but develop as a form of citizen or grassroots journalism, which may be considered as a valuable outcome even though there are ongoing debates about the implications of such a form of journalism (Gilmor, 2004).

In sum, with the development of the Internet and Web 2.0, NGOs took additional steps to become experts in the issue they address rather than serving as sources for media organizations (Ollion, 2010). They are more than information providers, as a majority of them are placing efforts in research in order to address the issue with supporting evidence and groundwork. As NGOs have their own distinctive ways of producing news and information as well as different purposes for its distribution, their communication style naturally becomes more persuasive in calling for active thinking, communicating, and

action, which is very well supported by the Web 2.0 applications that reach the public in a personalized manner.

NGOs AS MEDIATORS OF GLOBAL NEWS AND INFORMATION

So-called global media like CNN or other news agencies operating at the international level have not solved the problem of unbalanced and unequal coverage of international reporting. Although a majority of news outlets have created national and international editions online, their news content remains the same between the two. Most of these news outlets have their main offices in the U.S. or Western European countries, and many of their foreign bureaus have closed due to financial constraints (Ludtke, 2010). Freelance journalists are encountering increased risks while covering conflict zones and developing countries (Geary, 2014). Collaboration with the local media outlets does not occur as much. Layers of factors that influence production and distribution of global news exemplify how news content is influenced by a variety of internal and external forces (Shoemaker & Reese, 2014).

On the other hand, NGOs appear to have the conditions to complement global media. Because their work has an international framework, it is essential for them to have international chapters or partner organizations in the field. In addition, NGOs' communications work is becoming more professionalized. By employing former journalists as their communication officers, NGOs' publication is shifting from research- and service-oriented agendas to news formats that are easier to read and understand (Abbott, 2009). They also have the technological means to distribute news and information using their own channels. Through NGOs' news and information work, the public is being introduced to local, national, and transnational communities that they were not previously aware of.

The typical work of NGOs can be described as providing goods, services, and advocacy through their research and information sharing. NGOs working to address similar issues may interact with each other through international conferences. The purpose of their interaction is primarily for the exchange of information and other resources. In some cases, NGOs form coalitions to be more influential compared to acting individually. All of these interactions are planned and carried out for the purpose of the organization's success, and issue-specific communicative spaces are created through these interactions (e.g., development "space"). This study argues that this communicative space is created by NGOs. However, this does not mean that NGOs would replace the role of the legacy media. NGOs' communications work includes their perspective on the issue, and they might not be considered credible sources of news in some cases. NGOs do not have a stable audience like some of the major newspapers used to have, and the possibility of having the key policy makers and elites read their publications could be difficult. But, at the same time, NGOs have information that the legacy media do not have, and they produce their news based on factual evidence and provide that news to the public.

This chapter provided a background on how today's media landscape has experienced innovations and challenges with advancement of the digital technology and in which ways NGOs have emerged as mediators of news and information regarding global issues. This study suggests that NGOs are becoming more active in their production of news and information as experts in their working areas and that NGOs' use of interactive media platforms would provide further explanations of future directions of their news and information work. Just as advertising revenue and number of subscribers were important factors that shaped international reporting, this study suggests that NGOs' news and information work would be shaped by the organizational goals and needs. Such

behavior is expected to be revealed through the examination of the network environment in which NGOs are placed to find information, each organization's use of its own social media channels, and the informational and organizational benefits organizations find through the utilization of interactive media platforms.

Chapter 4: Research Questions

Previous chapters addressed the fact that at the outset of globalization and with increased recognition of transnational cooperation to resolve global public issues, having an adequate communication system for circulation of global news and information across national boundaries is essential for the formation of a global civil society and democratization of global governance. Based on theoretical and empirical research in global news and communication, it was identified that the current system of international communication, wherein nation states and inter-governmental organizations (IGOs) are the primary actors and the Western media mediate the flow of international news, has its limitations because it is modeled on a top-down, one-way flow of information. Although there have been discussions about bringing a New World Information and Communication Order (MacBride Commission, 1980), specific suggestions made by the MacBride Commission were not able to bring about changes, as they were believed to interfere with the “free press, free flow, and free market mechanisms” (McPhail, 2011, p. 13). In addition, expectations of the counter-flow of news from developing nations to the developed, as exemplified by alternative sources of information such as Al-Jazeera, have revealed their own limitations, as the Western news media “self-censored all counter-hegemonic news material from Al-Jazeera, without regard to the principles of objectivity and impartiality” (Samuel-Azran, 2010, p. 42).

Based on the review of the theoretical and empirical research on international affairs reporting, this study examines the potential of NGOs as mediators of the flow of news and information regarding global issues. Among many other non-traditional actors involved in the making of the news such as citizen journalists and political bloggers, NGOs offer a unique opportunity to examine the structures of transnational inter-

organizational networks, the direction of news and information flow within the network, as well as the characteristics of key players in comparison with the traditional system of international reporting.

Monge & Contractor (2001) defined communication networks as “the patterns of contact between communication partners that are created by transmitting and exchanging messages” that are formed among organizations through “flows of information within and between groups, strategic alliances between firms, and global network organizations” (p. 440). Because one of the core reasons that NGOs form inter-organizational networks is to exchange information and other resources, this study suggests that inter-organizational networks of NGOs are laying a foundation for a global communication network. It is possible to identify networks formed around NGOs working in similar issue areas with a list of NGOs working in a specific field and each organization’s self-reported relationship with other NGOs. This study finds data from the *Yearbook of International Organizations*, which compiles and updates information of over 68,000 international organizations from 300 countries (Union of International Associations, 2015a). Through analysis of each NGO’s relationship with other organizations in the field, this study examines the pattern of news and information flow in the network of NGOs. Key players in each network are identified to find out which organizations have the advantage of greater access to and control of information. Lastly, noting that these networks involve a diverse body of organizations that have varying degrees of social media use, this study examines the factors associated with and contributing to an NGO having a central position in the network.

STRUCTURE OF INTER-ORGANIZATIONAL NETWORK OF NGOS

Three different networks of NGOs, each respectively working for sustainable development, human rights, and journalism, were selected because all three issues are universal values shared across national and cultural boundaries. At the same time, the three networks formed around different issues offer an opportunity to compare their network structures, as each issue places varying degrees of importance on “global” communication to raise awareness of their working area. Therefore, the nature of the three different issue areas and the importance of communication in each field are expected to explain the structure of each network.

Among the three issue areas, sustainable development places the most importance on international cooperation in utilizing a limited amount of natural resources for development so that both the present and future generations’ needs can be met (United Nations World Commission on Environment and Development, 1987). Therefore, it is possible that the network formed among sustainable development organizations would have a greater interconnectedness, regardless of the geographical region they are based in. On the other hand, human rights NGOs are focused on reporting individual cases of violation, strategies, and associated results in each region. Therefore, the overall interconnectedness of the network structure might be not as dense compared to that of the sustainable development network. For the journalism network, given that it has a relatively narrow focus compared to the other two issues, it is expected that the overall network would work closely as a group in the way NGOs operate, with most of the organizations covering different regions and reporting to an umbrella organization that collects most of the news and information to aggregate and distribute them to the rest of the world. Because of these characteristics, the journalism network might show a greater level of centralization, with the umbrella organization at the center and dominating most

of the ties. In presenting the results of the analysis, specific measures like density, centralization, and reciprocity are used. In line with these discussions, RQ1 asks:

RQ1. What are the structures of the sustainable development, human rights, and journalism issue networks, and what are some of the notable differences among the three structures?

INTER-ORGANIZATIONAL LINKING PATTERNS AND KEY PLAYERS

While the structural analysis of each network provides information about the texture of the large network, examination of the linking patterns of each organization at the node-level offers an opportunity to test whether NGOs' inter-organizational networks are influenced by the homophily effect suggested by social network theory (McPherson et al., 2001), or if their tendency to tie with other NGOs should be explained by other factors such as organization-specific necessity of resource exchange, which is supported by resource dependence theory (Pfeffer & Salancik, 1978). Specifically, the study asks to what degree each organization tends to collaborate with other organizations that are similar or different from themselves in terms of organizational characteristics such as organization type and main office location. Analyses of the differences in tie density between groups were used to draw results. With regard to organization-to-organization linking patterns, the study asks:

RQ2. What are the patterns of collaboration within the sustainable development, human rights, and journalism issue networks?

In addition, in order to provide further details about the organizations in each network, the study identifies some of the key players in the network based on their network positions. Stars are the ones with the highest level of collaboration with other

organizations, while the bridges, brokers, or gatekeepers are the ones connecting organizations that are otherwise not connected. RQ3 asks:

RQ3. Which organizations take the position of (a) stars and (b) bridges, brokers, or gatekeepers in the three networks?

FACTORS ASSOCIATED WITH AND CONTRIBUTING TO AN NGO'S NETWORK CENTRALITY

Adding to the answers to RQ1-RQ3, which involved analyses of the network structures and patterns of ties within them, the next set of research questions asked about the factors that might explain each NGO's centrality in the network. For instance, what are some of the factors that might explain the number of collaborative relationships an NGO has (i.e., degree centrality)? Within the NGO community, what kind of organizational characteristics and behavior of social media use explain an NGO's role as a bridge or gatekeeper mediating between others (i.e., betweenness centrality)? Among a variety of NGOs, which ones are located more closely with the rest of the population in the network (i.e., closeness centrality)? And finally, which NGOs are connected with the most influential NGOs and what might be the reason for this (i.e., eigenvector centrality)?

In order to answer these questions, organizational characteristics, including an NGO's issue focus, location of main office, consultative status with the UN, and level of social media use (in terms of the amount of the content uploaded and the number of people subscribing to its news and informational content), were used to identify the factors associated with and/or contributing to an NGO's centrality in the network. One-way analysis of variance across groups and node-level regression analyses were conducted. RQ4a and 4b ask:

RQ4a. What are the organizational characteristics that are associated with each organization's network centrality and use of social media?

RQ4b. What are the factors among organizational characteristics and each organization's use of social media that contribute to an NGO's network centrality?

In addition to finding answers to these questions, results from in-depth interviews with NGO communication officers provide further explanations of their communication practices in general as well as their use of interactive media platforms, which the results of the network and statistical analyses cannot provide.

METHODS

Chapter 5: Analysis of Inter-organizational Networks and NGOs' Use of Interactive Media Platforms

The primary interest of this study is how NGOs, who are civic actors and non-professionals of news reporting, are laying down a foundation for their own communication structure through inter-organizational partnerships, and how this relationship along with their sharing of news and information may complement today's unequal and unbalanced flow of news and information related to international affairs. In addressing these interests, this study involves analyses at both the macro- and micro-levels. At the macro-level, this study attempts to provide an overview of how a global communication structure of NGOs is potentially being created and shaped by their inter-organizational networks and, at the micro-level, it examines individual NGO's behavior of interacting with other international organizations and the amount of news and information being distributed through the NGO's social media channels. In order to properly assess each element of this study, a mix of quantitative and qualitative methods are employed, including social network analysis, statistical analysis of the relationship between an individual NGO's organizational characteristics, level of social media use, and its relative position in the network, and interviews that have been conducted for contextualization of these results. This chapter outlines the rationale for selecting each method and the procedures used in the study, including information about the sample and descriptions of the specifics of each methodology as well as the variables employed.

RATIONAL FOR SELECTION OF METHODS AND PROCEDURES

The purpose of this study is to analyze and compare the structure of three inter-organizational networks that have as their goals to address global issues of sustainable

development, human rights, and journalism. This study further investigates the patterns of inter-organizational collaboration that foster the flow of news and information among those organizations through joint advocacy or service and seeks to find out to what extent NGOs' activeness on interactive platforms assist those organizations to grow in prominence, thereby enabling the groups to assume a more central position in their inter-organizational network.

Social network analysis was employed by this study to map out each inter-organizational network. Each social network was found to consist of actors (nodes), for example, individuals, groups, or organizations, and the relations between each of them (ties). The social network analysis further revealed the structure of network as a whole with patterns of connection among nodes and individual or collective level effects of each organization's position in the network (Wasserman & Faust, 1994). In this study, each organization was considered a node, whereas their formal relationships with each other signified ties. For each of the three issue areas - sustainable development, human rights, and journalism - three separate inter-organizational networks were analyzed. While other research approaches including, for example, ethnographic studies and examination of content are available for analysis, this study relies on the network approach in order to uncover characteristics of inter-organizational networks and behavior of organization-to-organization interactions.

Based on the results of the social network analysis, each organization's relative position was identified for the next step of the study. Using the number of relational ties of an organization, a determination was made about whether that group occupied a central or peripheral position in the network. The network centrality measures of each organization were used in a regression analysis to examine to what extent the group's

organizational characteristics and activeness in the social media realm could explain its position in the inter-organizational network.

Informed by the findings from social network analysis and analysis of the relationship between individual organization's characteristics, social media use, and its position in the network, semi-structured interviews were conducted with NGO communication officers. The primary objective of conducting the interviews was to further an understanding of the groups' reasons for connecting to other organizations as well as to learn more about their behavior of production and distribution of news and information through social media. A stratified sampling was used based on each organization's position in the network in order to further contextualize the findings from the interviews relative to each organization's role in each of the three issue networks.

Accordingly, the method employed by this study involved the following five steps: (a) identifying and profiling sustainable development, human rights, and journalism organizations; (b) analysis of the overall structure of each inter-organizational network (RQ1: social network analysis); (c) investigation of patterns of organization-to-organization ties (RQ2-3: social network analysis and test of tie density using results from social network analysis); (d) testing of the relationship between individual NGO's characteristics, social media use, and its network position (RQ4a-4b: one-way ANOVA and node-level regression analysis); and (e) contextualization of findings through semi-structured interviews with communication officers (See Table 5.1 for a summary of the mixed-method research).

Table 5.1. Summary of the Mixed-method Research

Analysis	Method	Sample
RQ1: Structural analysis of inter-organizational network	Social network analysis	$N = 4,574$
RQ2: Organization-to-organization linking patterns	Test of two group tie density	$N = 4,574$
RQ3: Identification of key players	Social network analysis	$N = 4,574$
RQ4a-4b: Relationship between individual NGO's characteristics, social media use, and network position	One-way ANOVA and node-level regression analysis	$N = 614$
Additional: Contextualization of the findings	Interview	$N = 9$

With regard to the sequencing of procedures of this study, the order emerged based on preceding stages that informed the latter. Findings from social network analysis made it possible to conduct node-level regression analysis that examined the relationship of organizational characteristics, social media use, and network position. Finally, results from both social network analysis and regression analysis were used for sampling interviewees as well as in the analysis of the interview results.

NETWORK DATA

Based on a social network perspective, this study first identified a list of organizations that work in the three issue areas of sustainable development, human rights and journalism in order to analyze the structure of inter-organizational networks. A social network is comprised of actors (nodes), organizations in this case, and ties (links), or relationships, between them. For selection of organizations and identification of their collaborative relationships, secondary data from *Yearbook of International Organizations* was relied upon.

Source of Network Data

The online database for the *Yearbook of International Organizations*, which is compiled and published by the Union of International Associations (UIA), was used as a primary source for network data collection. The UIA, a research institute based in Brussels, describes itself as “non-profit, apolitical, independent, and non-governmental in nature” (Union of International Associations, 2015b). *Yearbook of International Organizations* provides information about international organizations worldwide and has been widely used in studying international organizations in political science and communication research (Atouba & Shumate, 2010; Murdie & Davis, 2011; Murdie, 2014; Shumate & Dewitt, 2008; Shumate, Fulk, & Monge, 2005). The study found that the advantages of using the *Yearbook of International Organizations* included its comprehensiveness of the organizations listed and accuracy of the information about each NGO and its relationship with others. With information regarding a total number of more than 68,000 international organizations based in 300 countries, the list is updated annually with the addition of about 1,200 new organizations; the *Yearbook of International Organizations* provides the most comprehensive directory of organizations working within an international framework. In addition, organization descriptions include a broad range of categories, such as physical location of an organization’s main office, issue focus, relationship with other organizations, specific activities implemented, publications, and others that are updated every year based on self-reported data from each group (See Appendix A for a screenshot of a profile page in the *Yearbook of International Organizations*). Compared to studies that relied on lists of conference attendees and their organizational affiliations to identify a sample of inter-organizational networks as well as studies that used hyperlink analysis of organization websites to measure their connectedness, for this study I found information in the *Yearbook of*

International Organizations to be more suitable for analyzing the overall structure of inter-organizational networks with a focus on specific issue areas and exchange of news and information among transnational NGOs.

Sample of Primary Organizations

From the *Yearbook of International Organizations* database, a list of primary organizations was identified from each of the three subfields of sustainable development, human rights and journalism. The terms “sustainable development,” “human rights,” and “journalism” were used to perform a search for each organization’s subject area and to draw study subjects for three separate issue networks. From the initial list of organizations, some were excluded from the analysis if the database indicated the groups were currently inactive or dormant in the database. Although the focus of the study is on NGOs, inter-governmental organizations (IGOs) were also included in mapping out the networks as it is often the case that NGO networks emerge around influential IGOs. A good example relates to the United Nations (UN) that regularly offers global forums for NGOs where deliberations about important policy issues are held and networking opportunities emerge during the process. This study also found it beneficial to include IGOs in the analysis of networks in order to examine NGOs’ engagement with IGOs. The ability for NGOs to achieve their goals often depends on successful coordination and implementation of collaborative efforts across organizational types. As a result, IGOs may be more efficient in communicating with national governments due to the trust established among its member states, whereas NGOs may be more efficient in implementation of projects due to lower levels of bureaucracy and faster decision-making processes by its board members. Important for this study of networks is recognition that success of these organizations in achieving enactment and implantation of policy

decisions depends in large measure on the level of collaboration between different types of organizations.

Each group's organizational type (e.g., NGO or IGO), year of foundation (e.g., 1995), city and country of the main office (e.g., Washington D.C., USA) were included in this study's analysis as attribute data. In addition, each NGO was identified in terms of whether it holds a consultative status with the UN based on a list of NGOs in consultative status published on the UN website. In order to qualify for a consultative status with the UN, NGOs are evaluated in terms of the administrative structure of their organization, whether the group has a relationship with government, sources of funding and how funds are used as well as the group's on-going and future projects (United Nations Department of Economic and Social Affairs NGO Branch Office for ECOSOC Support and Coordination, n.d.). Based on those details, whether an NGO holds a consultative status with the UN can be a measure of that particular organization's capacity to successfully deliver advocacy or service in their area of expertise as well as ability to engage in policy dialogues at transnational settings (Murdie & Davis, 2011).

Organization-to-organization Relational Data

From the *Yearbook of International Organizations* database, this study compiled and entered onto a spreadsheet for analysis each organization's partnering organizations (Table 5.2). From the profile page of each organization, "relations with non-governmental organizations" and "relations with inter-governmental organizations" sections were used to identify ties among organizations. If "Organization 1" reported "Organization 2" as a collaborating organization, that information was operationalized as a directional tie from "Organization 1" to "Organization 2" (i.e., Organization 1→Organization 2). In the analysis, the relationship between the two organizations

implies that “Organization 1” considers “Organization 2” as “instrumental in the achievement of objectives” (Atouba & Shumate, 2010, p. 301). If both organizations reported being in partnership with each other (i.e., Organization 1→Organization 2 and Organization 2→Organization 1) that implies in the analysis that both organizations recognize each other as important sources of informational and/or material resource. Because of the fairly large size of each network, a nodelist was created to enter data then it was transformed into a matrix format for analysis. The nodelist shown in the Table 5.2 was created from a list of primary organizations included in the initial sample that were recorded in the first column followed by their partner organizations in each cell to the right. While some of the partnering organizations were included in the initial sample of primary organizations, some were not. Hereafter in this study, those organizations are referred to as “collaborating organizations.”

Table 5.2. An Example of Inter-organizational Collaboration Data Input

	Partner organization 1	Partner organization 2	...	Partner organization n
Organization 1	A	B		
Organization 2	A	C	...	H
Organization 3	-			
Organization...				
Organization N	B			

Boundary of Issue Network

For each network, primary organizations and their collaborating organizations were operationalized as parts of an issue network. For example, the *Yearbook of International Organizations* reported there are 614 organizations working on the area of sustainable development; 614 of them were the “primary organizations.” Each of those 614 organizations reported the names of their collaborators; excluding the organizations

already identified as primary organizations, 1,620 other organizations were identified as “collaborating organizations.” Thus, a total of 2,234 organizations formed the sustainable development network. For the human rights network, there were 724 primary organizations and 1,371 collaborating organizations. For the journalism network, 92 organizations focused on the issue of journalism with an additional 153 organizations were in the network as collaborating organizations.

ANALYSIS OF THE NETWORK STRUCTURE

An inter-organizational network can be considered as a “community” of organizations working both independently and interdependently to address and promote similar values among its “members.” By mapping out the overall structure of inter-organizational networks, this study makes visible an entire population of NGOs by describing the “texture” of relations among groups that form the community (Hanneman & Riddle, 2005). An examination of the structure of networks leads to questions such as: How densely or loosely connected is the community of international organizations working for each issue area (i.e., level of density)? To what extent are the interactions concentrated within a few organizations or spread evenly across the population (i.e., level of centralization)? To what extent do the communities present relationships among members as being “equal” or “stable” (i.e., level of reciprocity)?

Structural Characteristics of Networks

At the structural level, descriptive statistics and visual graphs of the network are presented in this study to provide an overview of the composition of each network. Social network analysis software package UCINET 6 and its visualization tool NetDraw was used for purposes of analysis and visualization of the network data (Borgatti, Everett, &

Freeman, 2002). Specific features observed for each network structure include network size, density, centralization, and reciprocity.

Size of the Network

The number of nodes and ties were used to measure the size of a network. In this study, the number of nodes for each network totaled 2,234 for the sustainable development network, 2,095 for the human rights network, and 245 for the journalism network. The number of ties represents the total number of existing relationships among organizations. Along with the number of organizations included in each network, the number of ties suggests the extent to which those organizations are connected to each other.

Given that each network has a different number of nodes, the mere number of ties found in each network fails to reveal the degree of connectedness as a whole group. Therefore, the number of ties in each network was compared with the maximum number of possible ties that could exist based on the total number of organizations in the network; that total is equivalent to the measure of density of the overall network, which is introduced in the next section.

Density

Network density represents the extent to which each network is densely or loosely connected as a group by calculating the “proportion of all possible dyadic adjacencies that are present divided by the number of pairs” (Hanneman & Riddle, 2005). A network with a relatively high density was found to have more ties across the network, which implies a higher level of interaction among the organizations as well as a more a complicated network structure. The density is represented by a range between 0 and 1:

the meaning of 0 is that there are no ties among the nodes and 1 means that all the nodes are connected to other nodes.

With respect to calculating the maximum number of possible ties, a network with a total of n number of nodes may have $n (n-1)$ number of possible ties if the direction of ties is counted different. If the direction of the ties is not considered to make a difference, the maximum number of possible ties in the network with a total of n number of nodes would be $n (n-1) / 2$. As the ties in the networks in this study are bi-directional (e.g., Organization 1 \rightarrow Organization 2 and Organization 2 \rightarrow Organization 1 are counted separately), $n (n-1)$ was used to calculate the maximum number of ties in each network.

Finally, density was calculated as $k / n (n-1)$ in a bi-directional network and measured as $k / \{n (n-1)/2\}$ in a uni-directional network, where k denotes the number of ties and n is the number of nodes (Hanneman & Riddle, 2005). As this study examined bi-directional ties, $k / n (n-1)$ was used to calculate the density of each network.

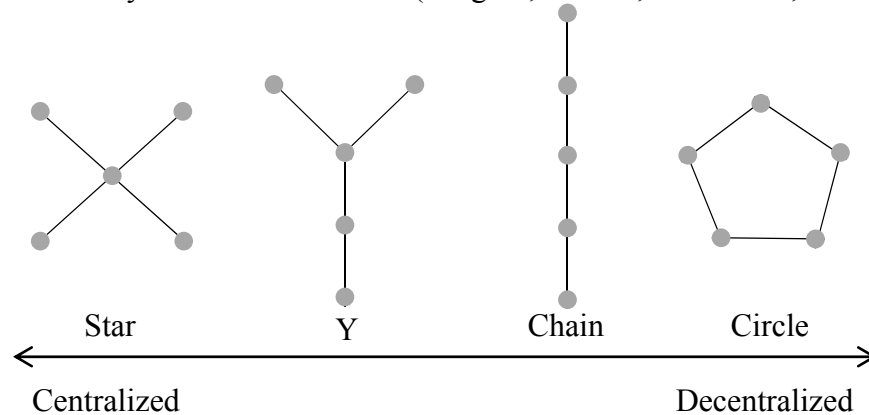
Centralization

Centralization of a network reveals the degree to which ties are concentrated on a few nodes or equally distributed across the nodes. Figure 5.1 is an illustration of networks observed by Bavelas (1950) and Leavitt (1951) in studying the influence of network structure in problem solving as a group. Centralization of a network graph ranges from 0 to 1 with 0 meaning that all the nodes have equal centrality values (e.g., circle network in Figure 5.1) and 1 meaning that a single node is in a central position with all possible ties while others are only connected to that one particular node (e.g., star network in Figure 5.1).

According to Bavelas (1950) and Leavitt (1951), a group with a more centralized network structure is considered more efficient in terms of the speed of providing a

solution and its accuracy, while a group with a more decentralized network structure is considered to have higher levels of interaction and satisfaction among the participants (Borgatti, Everett, & Johnson, 2013).

Figure 5.1. Examples of Network Structures Based on Centralization of the Graph Studied by Bavelas and Leavitt (Borgatti, Everett, & Johnson, 2013)



Reciprocity

Between a pair of nodes, there are four possible numbers of ties (i.e., no tie, Organization 1→Organization 2, Organization 2→Organization 1, or both organizations directing a tie to each other). The degree of reciprocity of a network refers to the proportion of reciprocated ties to the total number of pairs with any type of ties. A network with a greater proportion of reciprocated ties is considered to be more “equal” or “stable” compared to a network that has a greater proportion of asymmetric ties (Hanneman & Riddle, 2005).

ANALYSIS OF THE ORGANIZATION-TO-ORGANIZATION LINKING PATTERN

While structural analysis of each network provides information about the overall texture of the inter-organizational networks in which individual organizations are embedded, organization-to-organization linking pattern analysis focuses on identifying

the nature of each NGO's pattern of collaboration (e.g., Who links with whom?). Organizational attributes such as type of organization (i.e., NGO, IGO) and location of main office (i.e., Global North, Global South) were used in this study.

An analysis of two-group difference of tie-density was used in this study to examine which groups of organizations were more or less likely to tie with which other group. The logic of testing two-group difference of tie-density is similar to that of the Pearson Chi-square test for independence in that both compare "observed frequencies" with "expected frequencies" and test inferential significance from randomness (Hanneman & Riddle, 2005). For example, the results of analyzing the two-group difference of tie-density by organizational type yielded observed and expected frequencies of NGO-NGO collaboration, NGO-IGO collaboration, and IGO-IGO collaboration along with chances of such deviation that might occur if ties were randomly distributed with no effect of organizational type.

ANALYSIS OF INDIVIDUAL ORGANIZATION'S CENTRALITY AND ROLE

Based on the number of ties each organization established with other organizations in the network, six different measures of individual organization's network centrality (i.e., in-degree, out-degree, betweenness, in-closeness, out-closeness, and eigenvector centrality) were used to analyze which organizations were at the "center" or "periphery" of the inter-organizational network. In a network, an organization with the highest number of ties is generally considered to be the one that is most "active" and thus located at the "center" (Wasserman & Faust, 2005). However, there are various ways to define the "center" of a network which is the reason this study employed six different measures in the analysis. The following section includes descriptions of each measure and the implications of having high scores for each measure.

Individual Organization's Centrality Measures

Degree Centrality

Degree centrality measures the number of ties as an indicator of an organization's level of activeness and centrality among a set of organizations in the network. It is assumed that an organization that is linked to a higher number of organizations would benefit from its existing relationships and be less dependent on other organizations for informational and material resources necessary for survival and success of the organization. With directed data, which includes both types of ties that they receive (in-degree) and send (out-degree) as well as the in- and out-degree centrality scores make important implications for investigating the role of each organization within the network. Whereas a high in-degree centrality implies that an organization is perceived as resourceful and its capacity and willingness to support others, a high out-degree centrality suggests its need for the support of other organization to achieve its goals along with a high success rate in establishing such relationships with others. If this logic is applied to the sharing of news and information, a high in-degree centrality of an organization reveals its possession of important, unique, or up-to-date news and information that others would benefit from, and it may also be the case that news and information gathering and distribution is at the core of the organization's work. Following this view, a high out-degree centrality of an organization denotes that acquiring news and information from various organizations, in a timely manner, would be important for its work and its ability to achieve its organizational goals.

Betweenness Centrality

While the two different degree centrality scores introduced above make it possible to speculate on an individual organization's capacity or necessity to exchange resources

with others, betweenness centrality reveals an organization's role in mediating such processes. For example, if there are four nodes in a line network, which is connected in the order of n1-n2-n3-n4, nodes n1 and n4 must go through n2 and n3 to interact with each other. In this process, depending on the choice of n2 and n3 to facilitate this interaction, n1 and n4 might or might not be able to contact each other. In an inter-organizational network, to "facilitate" an interaction means that the bridging nodes n2 and n3 would introduce n1 to n4 for resource exchange or pass along news and information that n1 produced to n4, and vice versa. In that sense, betweenness centrality measures the extent to which an organization has "control" over the flow of informational and material resource on its surrounding organizations (Wasserman & Faust, 2005).

By counting the frequency of a node residing in the shortest pathways of two nodes, this measure helps in understanding the position and the power an organization has in influencing the flow of informational and material resources. An organization is considered to be playing the role of a bridge, broker, or gatekeeper and to be at a "central" position if it is in between many other actors. The higher the betweenness centrality measure the more the organization is in a favored position and the more powerful it becomes as other organizations are highly dependent on that particular organization in order to interact with others. A single measure of betweenness centrality is used, rather than making distinctions between its in- and out- measures, as it can be "applied to directed data without any important change" (Borgatti, Everett, & Johnson, 2013, p. 175).

Closeness Centrality

Close centrality score of a node examines one's distance from the rest of the nodes in the network. A node is considered to be "close" to other nodes, or at the "center"

of the network, if it is able to interact with the rest of the nodes with a minimum number of steps (Hakimi, 1965; Sabidussi, 1966). Close centrality of an organization is calculated using the total number of geodesic paths of a node to all other nodes in the network (i.e., shortest path connecting a pair of nodes), which is the “farness” of a node, and then by inverting this number to assign a higher score to a node that is located closer to other nodes.

In the inter-organizational network, an organization with the lowest number of steps required to reach all other nodes has the highest centrality and is positioned in the center. When directions of the ties are considered, an organization with a high in-closeness centrality score can be reached by all other organizations more easily and quickly. This creates an atmosphere for the rest of the organizations to efficiently identify and contact that particular organization for assistance in terms of informational and material resources. This particular measure has its importance with regard to efficient communication of information (Bavelas, 1950; Leavitt, 1951). If applied to the distribution of news and information, an organization with a high in-closeness centrality score may be more capable of spreading its message across the network in a timely manner. On the other hand, an organization with a high out-closeness centrality score can contact all other organizations more easily and quickly; therefore, it is more capable of gathering news and information from the rest of the organizations in the network in a timely manner.

Eigenvector Centrality

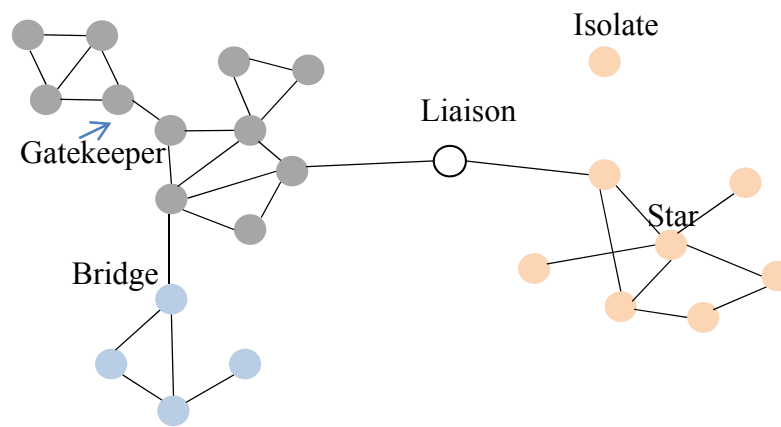
Although the number of ties a node sends or receives is an important basis for measuring a particular node’s centrality in the network, the three centrality measures introduced so far do not reflect the extent to which a node is connected to others that are

central, or peripheral, in the network. Being connected to a very prominent organization may increase one node's influence in the network compared to being connected with many others with relatively low centrality (Hanneman & Riddle, 2005). Eigenvector centrality is a prestige index, which is used to measure and evaluate the influence an organization has within the network by giving higher values to the connections with nodes of a relatively higher centrality in the network. In this study, this measure is used to identify the key organizations in each network.

Individual Organization's Role in the Network

Using each of the network centrality measures described in this section, this study identified organizations that are serving the roles of stars and bridges/brokers/gatekeepers in each network. Star organizations are the groups with the highest degree centrality scores, whereas bridges/brokers/gatekeepers are the ones with highest betweenness scores connecting different parts of the network that are otherwise disconnected. Although the role of a bridge, broker, and gatekeeper has different conceptual definitions, this study used the three terms together as the purpose of identifying these organizations is to determine which organizations are taking the role of a mediator in each of the inter-organizational network.

Figure 5.2. Individual Organization's Role in the Network



FACTORS ASSOCIATED WITH AND CONTRIBUTING TO NETWORK CENTRALITY

Using social network analysis as the primary method of analysis, this study relied on findings from the first part of this study to understand the structure of inter-organizational networks, patterns of interaction among involved organizations, and some of the key actors that play different roles. However, analysis of the network alone was not able to fully reveal whether each organization's network centrality level was associated with organizational characteristics or whether its activeness in the social media realm were factors that contributed to its network centrality.

Based on the results of analyzing each organization's network centrality levels through social network analysis and through collection of the data on those organizations' social media use, the second part of the study seeks answers to the following questions: How is an NGO's organizational characteristics (i.e., issue area, location of main office, and UN status) associated with its network centrality and social media use? What are some of the factors contributing to an NGO's centrality in the inter-organizational network? As the main interest of this study focuses on NGOs that are primarily concerned with issues of sustainable development, human rights, and journalism, 614

NGOs were included in the analysis, excluding collaborating organizations and IGOs. The unit of analysis was individual organization.

Organizational Attributes' Association with Network Centrality and Social Media Use

In order to examine whether an NGO's organizational characteristics are associated with its network centrality and social media use, a one-way analysis of variance was employed to test the mean differences of network centrality measures (i.e., degree, betweenness, closeness, and eigenvector) and social media variables (i.e., Facebook's number of "likes," "new page likes," and "people talking about this"; Twitter's number of "Tweets," "following," and "follower"; and YouTube's number of "subscriber," "videos," and "total views") by organizational characteristics (i.e., issue area, location of main office, and UN status).

Factors Contributing to Network Centrality

To examine the relationship between NGOs' organizational characteristics, use of social media platforms, and network centrality, node-level regression analysis was conducted. In terms of the causal relationships, this study follows a logic of thinking that examines the goals of NGOs and the importance of establishing collaborative relationships with other organizations to achieve such goals. NGOs are independent organizations working to achieve organizational goals set by the individual group's founding members, board of directors, and sometimes by its funders. In order to achieve specific goals, NGOs choose to collaborate with other organizations for the purpose of receiving assistance for informational and material resources. To be more successful in this process, it is beneficial for NGOs to be placed in a central position in the network with relationships with many, and important, organizations that may potentially support

their work. While various factors contribute to an organization's success to establish such relationships, two of the most important factors are: to be able to have oneself known to other organizations as well as to be knowledgeable about other organizations' work. NGOs' use of social media platforms is one of the most efficient ways to introduce themselves and to learn about others. Following that line of view, this study suggests that an NGO's behavior of using social media may be one of the factors that contributes to its seeking to have its organization placed in the center of a network.

Accordingly, four network centrality attributes described in the previous section were used as dependent variables (i.e., degree centrality, betweenness centrality, closeness centrality, and eigenvector centrality). Nine social media prominence measures were used as independent variables (i.e. Facebook's number of "likes," "new page likes," and "people talking about this"; Twitter's number of "Tweets," "following," and "follower"; and YouTube's number of "subscriber," "videos," and "total views"). The age of each organization and the age of its social media accounts were included in the analysis as control variables. Details about the variables included in the analysis are described next.

Control Variables

Age of organizations as well as the age of their social media accounts were included as control variables in the analysis so that effects of social media use could be examined without confounding effects. The age of each organization is indicated on the profile page included in the *Yearbook of International Organizations*. The age of each organization's social media accounts is based on information provided by social media. Twitter and YouTube pages indicate the month and year an organization's account was created (e.g., "Joined in Jan. 2012"), while Facebook profile pages do not provide

information about the date a particular organization joined the social network service. Therefore, the age of Facebook accounts for this study was excluded in the analysis.

Independent Variables

In addition to organizational attributes introduced earlier in this chapter (i.e., issue area, location of main office, and consultative status with UN), independent variables for this study consist of various measures that are publicly available on each social network service. NGOs' Facebook, Twitter and YouTube profiles were used for data collection as they are most widely used by both individuals and organizations. Data was collected from March 6 to March 14, 2015. Social media prominence measures were employed to signify: (a) the level of connectedness with other social media users and (b) activeness of the NGO in utilizing the social media platform for news distribution and access. In the following section, introduction of each social media platform is followed by descriptions of the variables employed.

Facebook

Facebook was launched in 2004 to serve a niche community of students in Harvard University, and it was later opened to students in other four-year colleges and high schools for purposes of personal social networking (Phillips, 2007). Its features include creating a personal profile with a space for posting, messaging, and sharing of multimedia content. Registered users are able to search and stay connected with other users by "friending" them. In September 2006, the social networking site was open to anyone over the age of 13 with an e-mail account including businesses, non-profits, and government agencies, and as of June 2015, Facebook reached 1.49 billion monthly active users (Facebook, 2015). Organizational users are assigned a Facebook "Page," where

individual users may connect with the organization and receive the organization's posts that appear on their news feed by using the "like" feature of the page.

Likes (aggregate number of people subscribing to the organization's posts)

The number of "likes" on an organization's page measures the number of people who have established a relationship with the organization by subscribing to its posts. Upon establishment of this "friendship," the posts, photos and videos provided by the organization appear on the subscribers' news feed unless the receiver purposefully chooses to hide them (Facebook, n.d.). The size of the group of "friendship" subscribers may increase or decrease over time as receivers have the option to "unlike" the organization's page.

New page likes (number of people who subscribed to the organization's posts in the last seven days)

While number of "likes" is an aggregate number of people who subscribed to an organization's posts over time, the "new page likes" shows the number of people who subscribed to an organization's posts in the last seven days. Compared to the number of "likes" an organization's page received, the "new page likes" measure provides information about a more recent trend in terms of how many people have subscribed to an organization's posts on Facebook.

People talking about this (number of people who have rebroadcast an organization's posts in the last seven days)

The number of "people talking about this," often referred to as PTAT, is a figure that Facebook employs to measure the number of people engaged in a particular Facebook Page. It is defined as "the number of unique users who have created a 'story' about a page in a seven-day period" (Darwell, 2012). Creating a story is defined as: liking a page, posting on the page wall, liking/commenting/sharing a post, answering a question,

RSVP to a page's event, mention the page in a post, tag the page in a photo, check in at a place, share a check-in deal, write a recommendation, claim an offer, etc. Similar to the concept of "unique visitor" in web matrix, one person can only be counted once during the week.

Twitter

Twitter, which was introduced as a micro-blogging service in 2006, is a social network that allows users to broadcast a message under 140 characters to followers. Going beyond the idea of using Twitter for personal socialization, research found that political conversations emerge through Twitter feeds (Small, 2011). The spreading of messages is one of Twitter's unique features (i.e., Retweet) and it is known to be more "newsful" compared to other social media platforms, meaning that Twitter is more widely used for news access (Chyi & Chadha, 2011). Twitter allows either a directional or asymmetric relationship for "following" and "follower." The messages are public unless intentionally set to be private and accessible only by user's followers. With more than 316 million monthly active users (Twitter, 2015), key words and search terms included in Twitter messages are widely studied in the field of communication (Bruns & Burgess, 2012).

Tweets (number of messages posted)

Number of "tweets" indicates how many messages have been posted by the organization since its Twitter account was first created.

Following (number of other Twitter accounts organization is following)

The number of users that the organization is "following" reveals from how many other users the organization is receiving messages on Twitter.

Followers (number of people that follow the organization on Twitter)

An organization's number of followers indicates the number of people who are receiving messages posted by the organization on Twitter, while the number of other users that an organization is "following" signifies the number of information sources that the organization is exposing itself to. In this study, the number of "followers" for a certain NGO denotes the number of social media users consuming the news and information that the particular NGO distributes through its own channel.

YouTube

YouTube is a video sharing service launched in 2005. As the name YouTube implies, its primary feature is the sharing of user-generated videos. Currently, individuals, not-for-profit organizations, as well as media corporations are using YouTube accounts to share various types of informational videos. Specifically, NGOs are utilizing the video sharing service to upload and share introductory videos of their organization, briefing clips explaining issues of concern, live streams of seminars and events, stories about field projects, testimonials of beneficiaries and other topics (YouTube, n.d.).

Subscribers (number of people who subscribed to the organization's channel)

The number of subscribers indicates the number of people who are subscribing to the list of videos uploaded and shared by an organization.

Videos (number of videos uploaded and shared by the organization)

The number of videos is the total number of videos uploaded and that remain available as posted by the organization since the creation of its own channel.

Total views (number of times that uploaded videos have been watched)

The number of total views indicates how many times an organization's videos have been watched since the creation of its video channel.

Dependent Variables

Four network centrality measures – degree centrality, betweenness centrality, closeness centrality, and eigenvector centrality - were used as dependent variables in the node-level regression analysis.

INTERVIEWS WITH NGO COMMUNICATION OFFICERS

The first and second parts of this study examined the structure of inter-organizational networks formed among sustainable development, human rights, and journalism organizations consisting of NGOs and IGOs. Through network analyses of groups of international organizations, it was possible to provide descriptions about what kind of organizations are involved in each network, their patterns of collaboration, key players, differences of network centrality and social media use associated with organizational characteristics, and the influence of their social media use on network centrality. However, such findings are largely focused on the structural characteristics of communities formed around selected international organizations, and they were limited in providing further information about each NGO's organizational goals, nature of work, and details explaining their communication practices. In order to provide a snapshot of NGOs involved in the three networks, semi-structured interviews were conducted with NGO communication officers. Based on interviews with communication officers working for nine randomly selected NGOs in the sample, further details of NGOs' communication work were identified, including their overall purpose of communication, target audience, strategies, and perceived opportunities and challenges.

In the sampling process, although the study employed stratified sampling based on each NGO's network centrality, not all NGOs responded to the interview request. Therefore, limitations exist to clearly define each NGO as serving the roles of stars, bridges/brokers/gatekeepers, or isolates in each network. However, descriptions of each

organization's characteristics such as issue area, organizational goals, geographical location, partnership information, as well as their relative position in the network were provided in order to offer a general understanding of these organizations.

RESULTS

Chapter 6: Structure of Inter-organizational Networks and Factors Explaining NGOs' Network Centrality

This study analyzed the inter-organizational network structure and patterns of collaboration between international organizations, as well as each NGO's organizational characteristics and level of social media use in relation to its position in the network. Analysis of the inter-organizational network structure provided information about the level of interconnectedness of each network (i.e., its density), whether the collaborative relationships are focused on a few organizations or equally distributed across the network (i.e., centralization), and the stability of organizational ties (i.e., reciprocity) at the macro-level. On the other hand, analysis of each organization's linking patterns provided information about the flow of information between different kinds of organizations (e.g., NGO and IGO), based on geographic regions (e.g., Global North and Global South), and the organization's relationship with the UN (e.g., with or without consultative status with the UN). Finally, analysis of factors explaining an NGO's relative position in the network provided insights into the extent to which the NGO's organizational characteristics, and its information work distributed through interactive online platforms, were associated with or contributed to fostering interactions among these groups.

This chapter presents findings regarding the structure of the three networks formed around selected issue areas of sustainable development, human rights, and journalism. Along with findings about the structure and patterns of collaboration in the inter-organizational networks, the chapter identifies factors explaining a high level of centrality in the network. In the first part of the chapter, the characteristics of each network are described and compared. Next, the chapter identifies key players in each network based on their centrality measures and describes the patterns of inter-

organizational collaboration for the three networks. Finally, relationship between individual NGO's organizational characteristics and social media use associated with network centralities are presented.

SAMPLE AND DESCRIPTIVE STATISTICS

Table 6.1 provides an overview of the primary organizations included in the analysis. A total of 1,430 organizations focusing on issues of sustainable development, human rights, and journalism were drawn from the *Yearbook of International Organizations*. The human rights group had the largest number of organizations, with 679 NGOs and 45 IGOs. The sustainable development group had 541 NGOs and 73 IGOs, and the journalism group had the smallest number of organizations, with 92 NGOs and no IGOs.

Table 6.1. Number of Primary Organizations in Sustainable Development, Human Rights, and Journalism Networks

	Organization type		Total
	NGO	IGO	
Issue area:			
Sustainable development	541 (41.2%)	73 (61.9%)	614 (42.9%)
Human Rights	679 (51.8%)	45 (38.1%)	724 (50.6%)
Journalism	92 (7.0%)	0 (0%)	92 (6.4%)
Total	1,312 (91.7%)	118 (8.3%)	1,430 (100.0%)

Table 6.2 presents profiles of primary NGOs in the sustainable development, human rights, and journalism networks based on the attribute data. More than half of the NGOs (55.2 percent) were founded between the mid-1980's and early 2000's, a time when there was a significant growth in the number of NGOs.

Table 6.2. Profiles of NGOs Focusing on Issues of Sustainable Development, Human Rights, and Journalism

	<i>N (%)</i>
Age of organization (year)	
Not indicated	122 (9.3)
1-10	107 (8.2)
11-20	364 (27.7)
21-30	361 (27.5)
31-40	170 (13.0)
41-	188 (14.3)
Global North or South	
Main office in OECD-country	969 (73.9)
Main office not in OECD-country	319 (24.3)
No main office	24 (1.8)
Consultative status with UN	
None	1,113 (84.8)
Roster	37 (2.8)
Special	143 (10.9)
General	19 (1.4)
Age of Twitter account	
No account	718 (54.7)
1-3 years	114 (8.7)
4-6 years	438 (33.3)
7- years	42 (3.2)
Age of YouTube account	
No account	791 (60.3)
1-3 years	165 (12.6)
4-6 years	223 (17.0)
7- years	133 (10.2)
Total	1,312 (100)

This study is interested in the potential of these inter-organizational networks as a foundation of a global communication structure fostering free and frequent flow of global news and information across transnational boundaries. For this reason, and because of the limitations of today's global news reporting (e.g., the one-way flow of news from developed countries to the rest of the world and the limited amount of news being shared between developing nations), NGOs included in this study were divided into two groups

based on the geographical location of their main offices: Global North (member country of OECD; developed country) and Global South (non-member country of OECD; developing country). The distribution of the physical locations of main offices is one of the indicators showing whether advocacy and service in the three issue areas are actively carried out by organizations in the Global North or South. Out of a total of 1,312 organizations, most of the NGOs (73.9 percent) were located in developed countries in the North, with less than one-fourth of the NGOs located in developing countries (24.3 percent), and a few of them (1.8 percent) not having a physical location for their main office. This result signifies that a majority of NGOs providing advocacy and service for the three selected issue areas are based in the Global North. In order to provide news and information that is related to cases of violation and policy in the developing countries, it is ideal for these NGOs to be closely collaborating with NGOs in the Global South or to have foreign chapters in the field. Results of their inter-organizational networking patterns are introduced in the later part of this chapter.

Establishing consultative status with the United Nations (UN) indicates that those NGOs are participating in deliberations hosted by the UN. As of September 2014, there are a total of 4,045 NGOs accredited by the UN for participation in formal UN deliberations (United Nations Economic and Social Council, 2014). Out of the three membership categories, 142 organizations were given general consultative status, which is given to fairly large international NGOs working on most of the issues covered by the UN and with a wide geographical reach. For special consultative status, 2,926 NGOs are registered with the UN; these tend to be smaller, with a specific focus covering only a few of the UN's working areas. Of the roster organizations, 977 have been identified by the UN as occasionally contributing to its work due to a narrow and/or technical focus.

Out of a total of 1,312 NGOs included in this study, a strong majority (84.8 percent) did not hold consultative status with the UN. Another 199 NGOs included in this study had formal relationships with the UN, signifying their operational and financial capacities. In terms of their membership categories, 19 NGOs were participating in UN deliberations with a general status (1.4 percent); these were fairly large international NGOs with broad scopes and wide geographical areas. Special status was held by 143 NGOs (10.9 percent); these were relatively small, recently established NGOs. Roster status was held by 37 NGOs (2.8 percent); these were occasionally involved with UN activities. Aside from having accreditation from the UN to participate in international conferences and meetings, the 199 NGOs with consultative status are expected to have more opportunities to let others know about their work through networking events hosted by the UN. By having their name on a list of organizations working closely with the UN, they are also more likely to be informed about current debates in the international realm, which might influence their advocacy and service-oriented works.

In terms of their use of interactive media platforms, each NGO's social media accounts on Facebook (open to the public in 2006), Twitter (started service in 2006), and YouTube (started service in 2005) were identified: Facebook did not provide the history of each account, but less than half of the NGOs were using Twitter (43.3 percent) or YouTube (39.7 percent).

STRUCTURE OF INTER-ORGANIZATIONAL NETWORKS

RQ1 asked about the structures of the inter-organizational networks formed around selected issue areas of sustainable development, human rights, and journalism, and whether there were any differences across the three networks. This study

characterized these networks as the sustainable development network, the human rights network, and the journalism network, respectively.

Table 6.3 presents the findings with regard to the three networks' structures. With respect to the networks' sizes, the sustainable development network had 2,234 organizations, the human rights network was made up of 2,095 organizations, and the journalism network consisted of 245 organizations.

Table 6.3. Structure of the Networks Formed Around Three Issue-foci

	Sustainable Development	Human Rights	Journalism
Network size	2,234	2,095	245
Density	.0010	.0010	.0054
Average degree	1.928	1.869	1.310
Fragmentation	.939	.926	.964
Centralization	.1255 (out) .0368 (in)	.0674 (out) .0254 (in)	.1798 (out) .0687 (in)
Reciprocity	.510	.070	.081

With respect to the density of the networks, both the sustainable development and human rights networks were loosely connected, with lower densities than the journalism network. When the number of degrees (i.e., ties to other organizations) was compared, however, the sustainable development and human rights organizations had more average ties than did journalism organizations, which indicates that the density level might be influenced by the size of the network. Overall, the three networks were highly fragmented, with a large number of organizations found to be isolates (groups with no ties) or pendants (groups with only one tie).

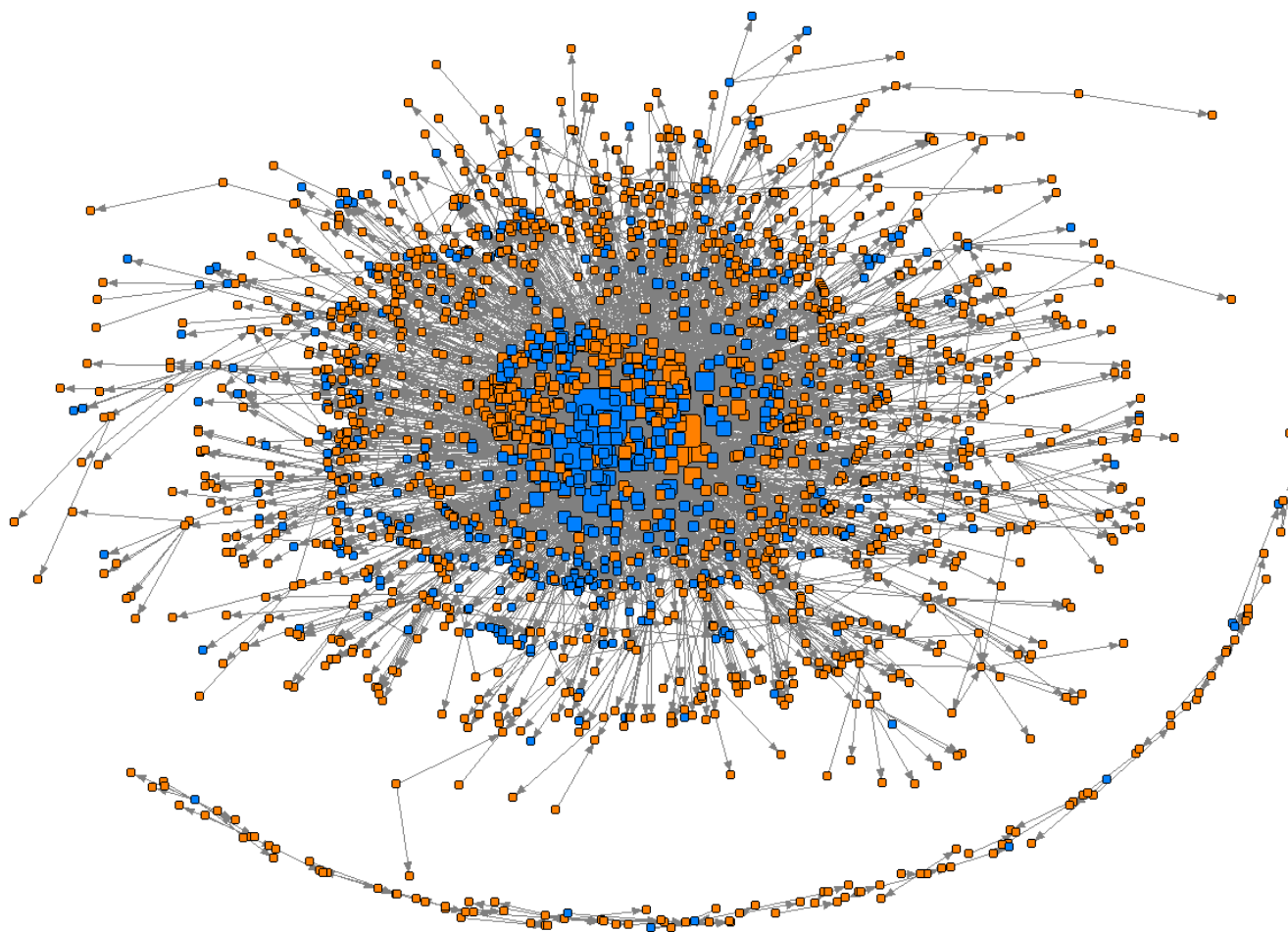
Analysis of each network's centralization was presented using in-centralization and out-centralization measures, as the ties were bi-directional. The centralization of a network ranges from 0 to 1; a graph centralization of 0 indicates that the structure of the

network is circular, with ties equally distributed across the network, whereas a graph centralization of 1 indicates a star network with ties concentrated on only one node. Among the three networks, the journalism network had the highest graph centralization. The sustainable development network was the next highest, followed by the human rights network. All three networks, however, did not reveal an unequal distribution of positional advantages.

Among the three, the sustainable development network stood out with a reciprocity rate of .51. More than 50 percent of collaborative relationships established among sustainable development organizations were reciprocal. For instance, if Organization 1 referred to Organization 2 as a partner organization, Organization 2 also referred to Organization 1 as its partner organization in half of these cases. Compared to the reciprocity rates of the other two networks, which was lower than 10 percent, this suggests that formal relationships among sustainable development organizations are more stable and that the relationships might be more an exchange-based rather than one organization providing information or resources to the other.

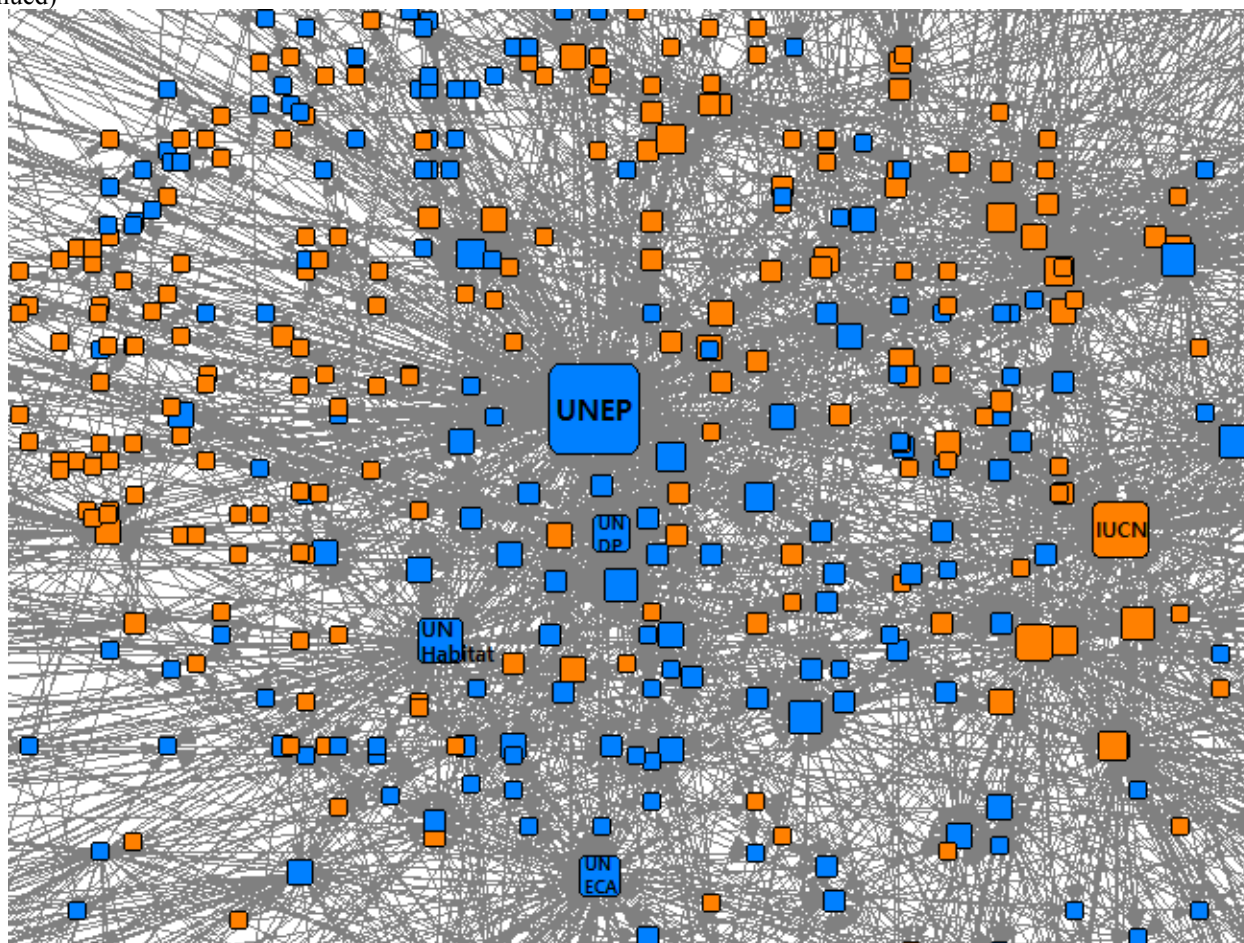
Figures 6.1 to 6.3 provide visual illustrations of each network, confirming these findings. In each graph, the node colors denote organization types (i.e., Orange = NGO and Blue = IGO), and the node sizes signify the nodes' eigenvector centrality scores, which explain an organization's centrality in the network considering the degree to which an organization is tied to other organizations that are central in the network.

Figure 6.1. Inter-organizational Sustainable Development Network



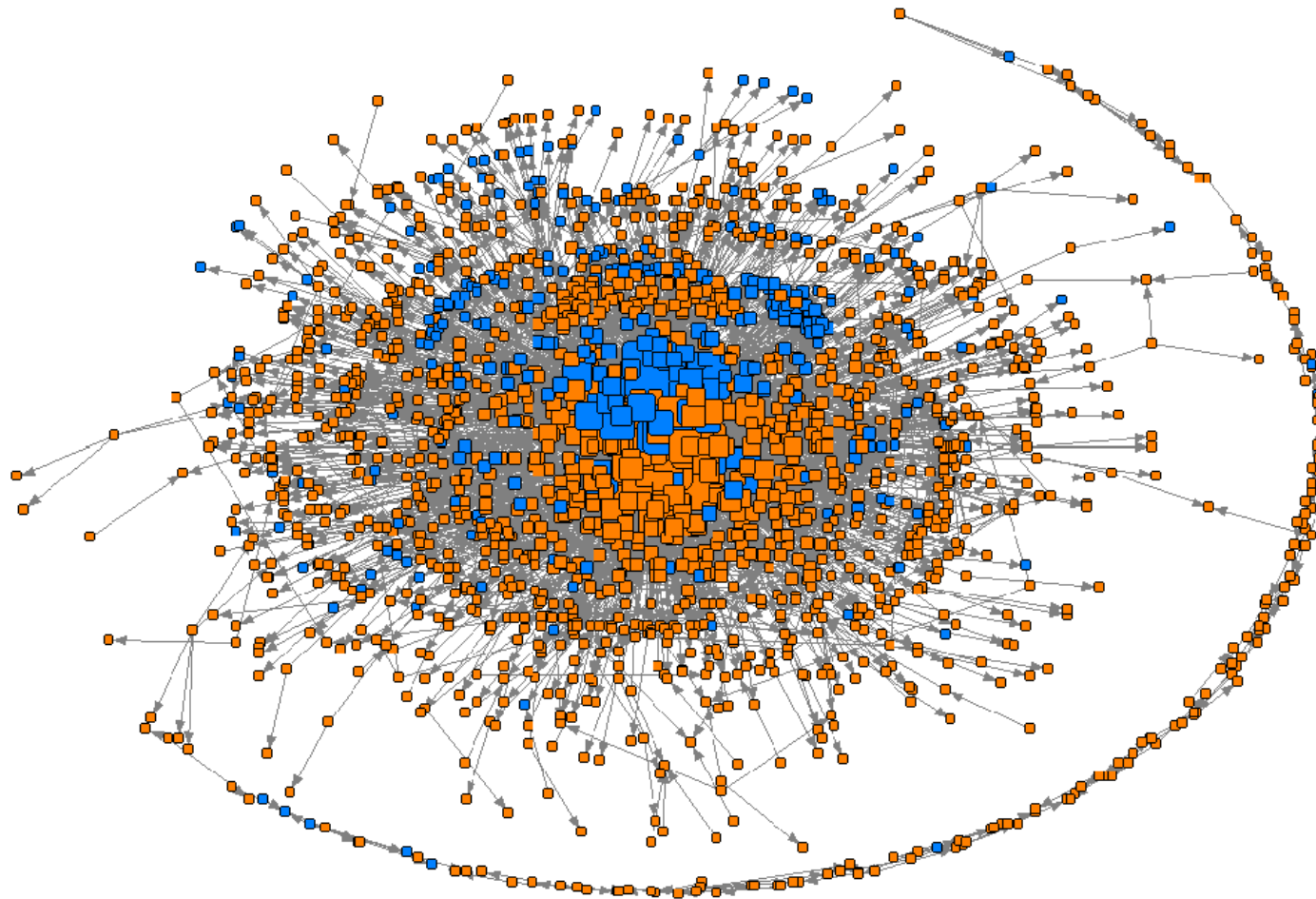
Note. Orange = NGO, Blue = IGO; Node size by eigenvector centrality, isolates removed.

(Figure 6.1 continued)



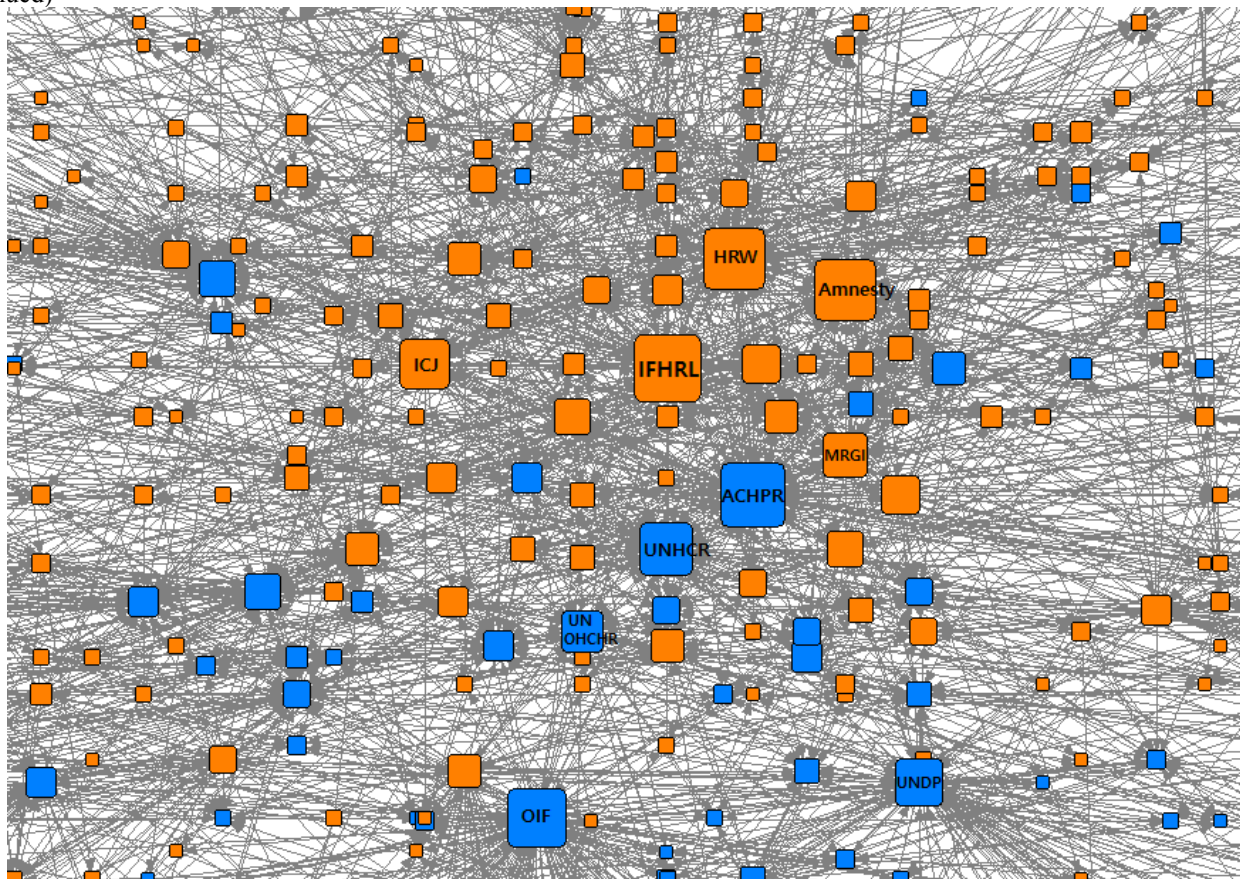
Note. Orange = NGO, Blue = IGO; Node size by eigenvector centrality; Organizations with top five eigenvector centrality scores labeled: United Nations Environment Programme (UNEP); International Union for Conservation of Nature (IUCN); United Nations Human Settlements Programme (UN Habitat); United Nations Economic Commission for Africa (UN ECA); and United Nations Development Programme (UNDP).

Figure 6.2. Inter-organizational Human Rights Network



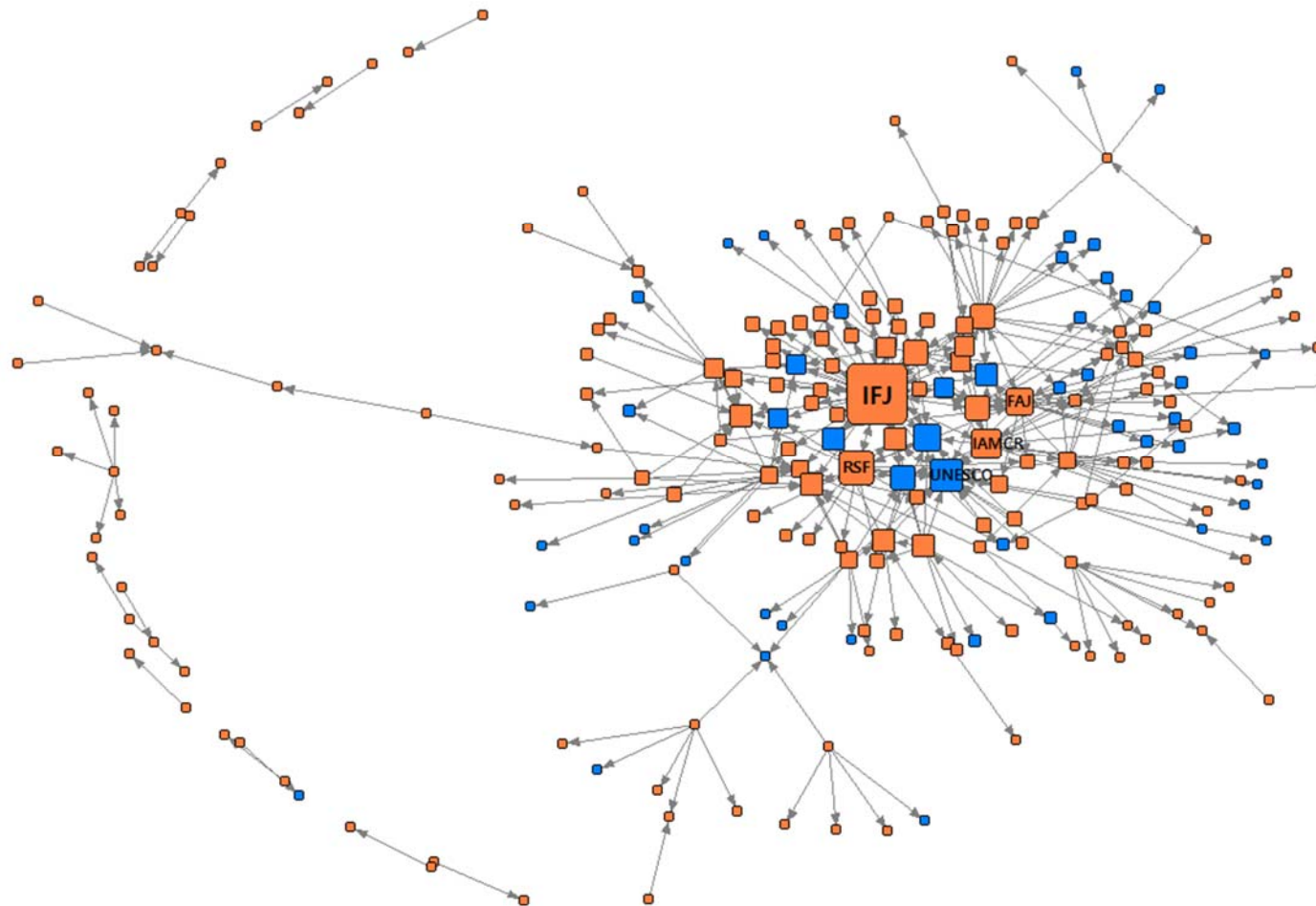
Note. Orange = NGO, Blue = IGO; Node size by eigenvector centrality, isolates removed.

(Figure 6.2 continued)



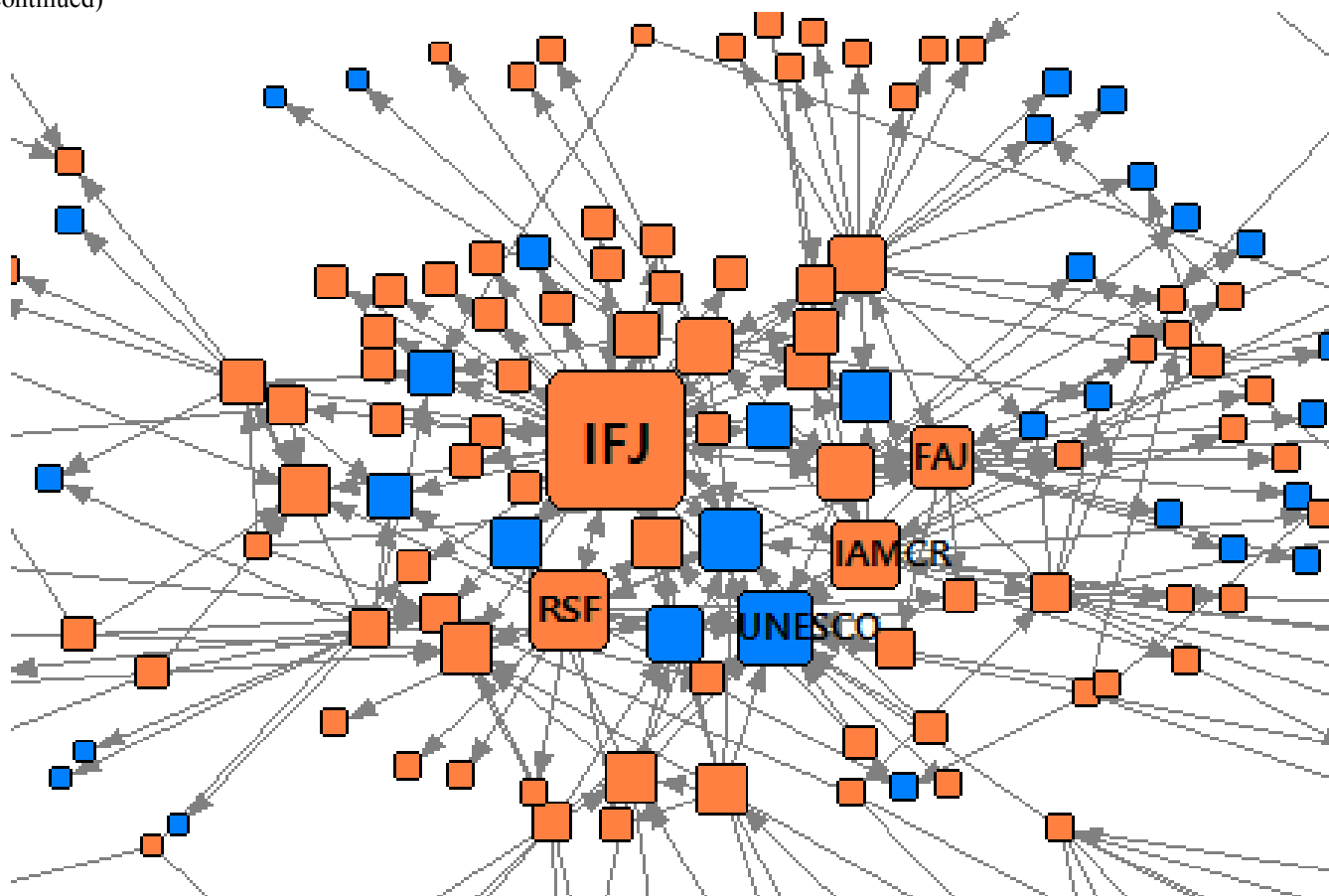
Note. Orange = NGO, Blue = IGO; Node size by eigenvector centrality; Organizations with top ten eigenvector centrality scores labeled: International Federation of Human Rights Leagues (IFHRL); African Commission on Human and Peoples' Rights (ACHPR); Human Rights Watch (HRW); Amnesty International (Amnesty); Organisation internationale de la Francophonie (OIF); United Nations High Commissioner for Refugees (UNHCR); International Commission of Jurists (ICJ); and United Nations Development Programme (UNDP); Minority Rights Group International (MRGI); and United Nations Office of the High Commissioner for Human Rights (UN OHCHR).

Figure 6.3. Inter-organizational Journalism Network



Note. Orange = NGO, Blue = IGO; Node size by eigenvector centrality, isolates removed.

(Figure 6.3 continued)



Note. Orange = NGO, Blue = IGO; Node size by eigenvector centrality; Organizations with top five eigenvector centrality scores labeled: International Federation of Journalists (IFJ); Reporters Without Borders (RSF); United Nations Educational, Scientific and Cultural Organization (UNESCO); International Association for Media and Communication Research (IAMCR); and Federation of Arab Journalists (FAJ).

ORGANIZATION-TO-ORGANIZATION LINKING PATTERNS

RQ2 asked about the patterns of collaboration in sustainable development, human rights, and journalism issue networks. For each network, organizations were divided into NGO and IGO groups. Similarly, based on the location of each organization's main office, they were divided into Global North and Global South groups. Global North organizations were defined as those in OECD-member countries. Global South organizations' main offices were not located in OECD-member countries. A test of two-group tie density was performed to examine each group's propensity to tie among themselves and with the other groups. Findings are presented in Table 6.4.

Table 6.4. Tests of Two-group Differences in Tie-density

	Expected	Observed	Difference	$P \geq \text{Diff}$	$P \leq \text{Diff}$
Sustainable Development					
NGO-NGO	2328.642	1691.000	-637.642	1.000	0.000***
NGO-IGO	1514.654	1507.000	-7.654	0.498	0.506
IGO-IGO	245.704	891.000	645.296	0.000***	1.000
Global N-Global N	2118.103	2079.000	-39.103	0.617	0.385
Global N-Global S	1650.196	1487.000	-163.196	0.946	0.055
Global S-Global S	320.700	523.000	202.300	0.004**	0.997
Human Rights					
NGO-NGO	2577.684	2230.000	-347.684	0.999	0.001**
NGO-IGO	988.821	1138.000	149.179	0.055	0.947
IGO-IGO	94.495	293.000	198.505	0.000***	1.000
Global N-Global N	2047.858	2262.000	214.142	0.029*	0.972
Global N-Global S	1380.931	1148.000	-232.931	0.999	0.001**
Global S-Global S	232.211	232.211	18.789	0.317	0.693
Journalism					
NGO-NGO	184.102	211.000	26.898	0.096	0.916
NGO-IGO	99.722	86.000	-13.722	0.799	0.221
IGO-IGO	13.176	0.000	-13.176	1.000	0.001
Global N-Global N	158.297	148.000	-10.297	0.694	0.320
Global N-Global S	117.389	130.000	12.611	0.218	0.800
Global S-Global S	21.314	19.000	-2.314	0.588	0.460

* $p < .05$, ** $p < .01$, *** $p < .001$

In the sustainable development network, IGOs had a greater propensity to tie with each other than would be expected at random. On the other hand, NGOs were less likely to collaborate with each other. Chances of NGO-IGO collaboration were not higher than would be expected at random. Organizations based in the Global South were more likely to collaborate with each other.

In the human rights network, IGOs also had a greater propensity to tie with each other, while NGOs were less likely to interact with each other. Chances of collaboration between NGOs and IGOs were not higher than would be expected at random. On the other hand, an analysis of linking patterns based on geographical location revealed a different result. Organizations in the Global North were more likely to tie with each other, while interaction between the organizations in the Global North and South was less likely.

In the journalism network, analysis of linking patterns did not show significant differences based on the type of organization or geographical location.

Overall, analyses of the three networks' linking patterns revealed that IGOs had a greater propensity to tie with each other in both sustainable development and human rights networks. In terms of the interactions between organizations in the Global North and South, Southern organizations working in the area of sustainable development were more likely to collaborate with each other, and Northern organizations working for human rights were more likely tie with each other. Such findings suggest that interactions between IGOs and NGOs are not active. There also is a divide between the Global North and South in terms of interactions among organizations. Analyses of inter-organizational network structure and linking patterns among organizations involved in each network show that exchange of sustainable development and human rights information might occur primarily among IGOs. For the issue of sustainable development, organizations

based in the Global South were more likely to interact with each other, whereas for the issue of human rights, organizations based in the Global North were more likely to have ties with each other. Results did not consistently support either the homophily hypothesis or resource dependency. For the journalism network, as indicated in the earlier section of this chapter, it would be worthwhile to identify the key actors in the network in order to further investigate the diversity and flow of information.

ROLE OF EACH ORGANIZATION IN THE NETWORK

RQ3 asked which organizations were the (a) stars and (b) bridges, brokers, or gatekeepers in the three networks. Given that the size of the networks involved in this study is fairly large, this section provides further information about which organizations are the key players and bridges in the inter-organizational networks.

Star players in the networks are defined as the ones with the highest degree scores. An organization's in-degree score is equal to the number of other organizations that referred to it as a collaborating organization. An organization's out-degree score indicates the number of other organizations that it lists collaborative relationships with. Following the conceptual definition of a "tie" used in this study's data-collecting procedures, organizations with high in-degree scores can be considered as well-known or resource-rich, whereas organizations with high out-degree scores can be understood as successful at identifying and establishing relationships with many other organizations.

Overall, IGOs were influential and active among the star players identified in terms of both out-degree and in-degree centrality scores; IGOs were also prominent in the bridge/broker/gatekeeper roles identified using betweenness centrality measures. Specific results are provided in the tables for each network.

Table 6.5. Star Players in the Sustainable Development Network

Rank		Out Degree
1	United Nations Environmental Programme (IGO/Global South)	282
2	International Union for Conservation of Nature and Natural Resources (NGO/Global North)	119
3	United Nations Economic Commission for Africa (IGO/Global South)	116
4	United Nations Human Settlements Program (IGO/Global South)	101
5	Secretariat of the Convention on Biological Diversity (IGO/Global North)	80
Rank		In Degree
1	United Nations Environmental Programme (IGO/Global South)	84
2	International Union for Conservation of Nature and Natural Resources (NGO/Global North)	62
3	United Nations Framework Convention on Climate Change – Secretariat (NGO/Global North)	54
	European Commission (IGO/Global North)	54
	United Nations Development Programme (IGO/Global North)	54

In the sustainable development network, out of the five star players with the highest out-degree scores, indicating these organizations' awareness of other organizations with beneficial resources and information, four organizations were IGOs. Among the four IGOs, three were located in African countries in the Global South; only the Secretariat of the Convention of Biological Diversity was located in the Global North. The International Union for Conservation of Nature and Natural Resources, which is the only NGO in the list, is an organization based in Switzerland.

When in-degree score, which indicates the number of other organizations referring to these organizations as partners, is considered, the two organizations with the highest out-degree scores, the United Nations Environment Programme and the

International Union for Conservation of Nature and Natural Resources, also had the highest in-degree scores. This suggests that the two organizations were not only successful in locating and establishing partnerships with organizations that they find helpful for collaboration; they were also prominent among other organizations because they had the resources and information to help others. The organizations with the highest in-degree scores included three IGOs and two NGOs; of these, only one of the IGOs was located in the Global South.

Table 6.6. Star Players in the Human Rights Network

Rank		Out Degree
1	Organisation internationale de la Francophonie (IGO/Global North)	143
2	African Commission on Human and Peoples' Rights (IGO/Global South)	82
3	Human Rights Watch (NGO/Global North)	80
4	United Nations Development Programme (IGO/Global North)	73
5	International Federation of Human Rights Leagues (NGO/Global North)	64
Rank		In Degree
1	United Nations High Commissioner for Refugees (IGO/Global North)	55
2	African Commission on Human and Peoples' Rights (IGO/Global South)	51
3	Amnesty International (NGO/Global North)	42
4	United Nations Office at Vienna (IGO/Global North)	42
5	European Union Agency for Fundamental Rights (IGO/Global North)	38

In the human rights network, IGOs were also identified as being more successful in establishing formal relationships with other organizations. Out of the five organizations with the highest out-degree scores, only the African Commission on

Human and People's Rights was based in the Global South. The rest of the organizations, including the other two IGOs and both NGOs, were all based in the Global North.

Among the five organizations with the highest in-degree scores in the human rights network, Amnesty International was the only NGO on the list; it is based in the Global North. Of the four IGOs, only the African Commission on Human and People's Rights was not based in the Global North. Therefore, many of the key players in the human rights network, whether they have higher in-degree or out-degree scores, are based in the Global North.

Table 6.7. Star Players in the Journalism Network

Rank		Out Degree
1	International Federation of Journalists (NGO/Global North)	45
2	Confederation of ASEAN Journalists (NGO/Global South)	19
3	Reporters Without Borders (NGO/Global North)	18
4	Federation of Arab Journalists (NGO/Global South)	16
5	International Association for Media and Communication Research (NGO/Global North)	15
Rank		In Degree
1	United Nations Educational, Scientific and Cultural Organization (IGO/Global North)	18
2	International Federation of Journalists (NGO/Global North)	11
3	Global Forum for Media Development (NGO/Global North)	8
4	United Nations Economic and Social Council (IGO/Global North)	8
5	International News Safety Institute (NGO/Global North)	7

In the journalism network, all five organizations with the highest level of out-degree scores were NGOs serving other organizations in different regions of the world, including the International Federation of Journalists and Reporters Without Borders, serving all geographical areas; the Confederation of ASEAN Journalists, serving its members in Southeast Asia; and the Federation of Arab Journalists, serving its members in the Arab world. Another of these groups, the International Association for Media and

Communication Research has its historical foundation in the United Nations Conference on Freedom of Information and now serves as a forum for exchange of information among scholars, media professionals, and policy makers (International Association for Media and Communication Research, n.d.).

Concerning in-degree score, a large number of organizations referred to IGOs such as the United Nations Education, Scientific, and Cultural Organization and the United Nations Economic and Social Council as their partner organizations. The International Federation of Journalists remained in the list. In addition, NGOs like the Global Forum for Media Development and the International News Safety Institute were found to be prominent among journalism organizations even though those two organizations are not specifically focused on the issue of journalism. All five organizations in this list were based in the Global North.

Table 6.8. Bridges/brokers/gatekeepers in the Sustainable Development Network

Rank		Betweenness
1	United Nations Environment Programme (IGO/Global South)	3.514
2	International Union for Conservation of Nature and Natural Resources (NGO/Global North)	1.422
3	United Nations Economic Commission for Africa (IGO/Global South)	.616
4	United Nations Human Settlements Programme (IGO/Global South)	.591
5	World Business Council for Sustainable Development (NGO/Global North)	.510

While the star players are those with the most interactions with other organizations, organizations that play the role of gatekeeper are those that mediate interactions among other organizations. In the sustainable development network, other than the organizations that are already identified as star players, the United Nations Economic Commission for Africa and the World Business Council for Sustainable

Development were identified as bridges in the network. All three IGOs among the top five organizations were located in the Global South, and the two NGOs were based in the Global North.

Table 6.9. Bridges/brokers/gatekeepers in the Human Rights Network

Rank		Betweenness
1	African Commission on Human and Peoples' Rights (IGO/Global South)	2.269
2	Organisation internationale de la Francophonie (IGO/Global North)	1.636
3	International Federation of Human Rights Leagues (NGO/Global North)	1.130
4	European Union Agency for Fundamental Rights (IGO/Global North)	1.096
5	Human Rights Watch (NGO/Global North)	1.080

In the human rights network, five of the star players with the highest level of interaction with other organizations were also identified as gatekeepers.

Table 6.10. Bridges/brokers/gatekeepers in the Journalism Network

Rank		Betweenness
1	International Federation of Journalists (NGO/Global North)	2.322
2	International Association for Media and Communication Research (NGO/Global North)	.896
3	Federation of Arab Journalists (NGO/Global South)	.522
4	European Journalism Centre (NGO/Global North)	.487
5	Asian Institute of Journalism and Communication (NGO/Global South)	.457

In the journalism network, the International Federation of Journalists, which had the highest number of partnering organizations, was also identified as having the greatest control over the flow of information in the network. Similar to the findings regarding the star players, the five organizations acting as bridges in the journalism network also represented different geographical regions.

ORGANIZATIONAL FACTORS ASSOCIATED WITH NETWORK CENTRALITY AND SOCIAL MEDIA USE

RQ4a asked about the organizational characters associated with network centrality and social media use. One-way analysis of variance (ANOVA) was conducted to compare the mean differences of four centrality measures (i.e., degree, betweenness, closeness, and eigenvector centralities) and social media use (i.e., Facebook, Twitter, and YouTube variables, including amount of content uploaded, number of subscribers, etc.) by organizational characteristics (i.e., issue area, location of main office, and relationship with the UN). A total of 614 NGOs in the main component of the combined network¹ of sustainable development, human rights, and journalism organizations were included in the analyses (Table 6.11).

¹ A total of 614 NGOs were combined into one large network for computation of each NGO's centrality scores. As the findings were consistent with the results from the individual analysis of the three networks, possibly due to a small number of organizations involved in more than two issue areas and there not being much overlap across the three networks, results are presented using the measures computed with all organizations combined into one network.

Table 6.11. Profile of NGOs Included in the Main Component of the Network (N=614)

	<i>n</i>	<i>Mean</i>	<i>SD</i>
Age of organization (years)		29.4	18.0
Location of main office			
In OECD-member country	439		
Not in OECD-member country	175		
Issue area			
Sustainable development	257		
Human rights	311		
Journalism	39		
Hybrid	7		
Age of social media accounts (years)			
Twitter		2.6	2.6
YouTube		2.1	2.9
Facebook use			
Like	13,297.3		113,216.6
New page like	103.2		896.1
People talking about this	614.4		6,467.0
Twitter use			
Tweet	1,789.0		3,979.1
Follower	9,529.9		90,088.8
Following	518.7		1,195.7
YouTube			
Video	32.9		90.5
Subscriber	458.6		4,840.0
Total view	251,024.6		2,843,690.4

Sustainable Development NGOs with Greater Access to the Whole Network and to Influential NGOs

Based on their issue-focus, NGOs were divided into three groups: sustainable development, human rights, and journalism groups. Seven hybrid NGOs involved in more than two issue areas were excluded from the analysis due to a small sample size. A significant mean difference was found among the three groups in terms of each group's mean of closeness centrality [$F(2, 604) = 15.579, p < .001$] and eigenvector centrality [$F(2, 604) = 41.566, p < .001$]. Post-hoc comparisons using Scheffé's test, which is

generally used for unequal samples sizes, showed that the mean of closeness centrality among sustainable development NGOs ($M = .246$, $SD = .037$) was significantly higher than those of human rights NGOs ($M = .243$, $SD = .035$) and journalism NGOs ($M = .211$, $SD = .040$). This result shows that NGOs focusing on sustainable development are able to access other organizations in the main component of the network in a more efficient manner. Hence, information requested or sent by sustainable development NGOs is likely to travel more quickly than it would for NGOs from other issue areas.

Table 6.12. One-way ANOVA by Issue Area

	Sustainable Development (<i>n</i> = 257)		Human Rights (<i>n</i> = 311)		Journalism (<i>n</i> = 39)		<i>F</i> -statistic
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Centrality:							
Degree	.005	.008	.006	.008	.004	.003	1.832
Betweenness	.003	.009	.004	.010	.004	.007	1.752
Closeness	.246	.037	.243	.035	.211	.040	15.579***
Eigenvector	.036	.048	.011	.017	.005	.011	41.566***
Social Media:							
Facebook							
Like	12,452	134,337	14,409	101,528	11,881	32,667	.024
New page like	56	573	150	1,144	56	157	.835
PTAT	540	6,583	744	6,844	169	417	.169
Twitter							
Tweet	1,388	3,073	2,071	4,536	2,245	4,643	2.331
Follower	8,255	80,710	11,252	103,117	5,559	15,234	.118
Following	532	1,393	518	1,051	363	637	.345
YouTube							
Video	40	107	27	71	37	117	1.325
Subscriber	501	6,090	463	3,956	161	504	.087
Total view	250,939	2,853,557	281,155	3,042,012	55,609	207,002	.108

* $p < .05$, ** $p < .01$, *** $p < .001$

Moreover, sustainable development NGOs' mean eigenvector centrality ($M = .036$, $SD = .048$), which measures to what extent a group is connected to influential NGOs in the network, was higher than those of human rights NGOs ($M = .011$, $SD = .017$) and journalism NGOs ($M = .005$, $SD = .011$). Combining these findings, it can be

concluded that sustainable development NGOs are well-connected to other NGOs in the main component of the network, and particularly to influential actors in the network.

Lastly, there was no significant difference found in terms of the social media use among different issue groups.

NGOs Located in OECD-member Countries Serving as Bridges and More Active in Spreading and Collecting Information on Social Media

One way ANOVA by location of the main office showed a significant mean difference of betweenness centrality [$F(1, 612) = 3.892, p = .049$]. When NGOs were divided into two groups, those that have main offices in OECD-member countries and those that do not, NGOs located in OECD-member countries ($M = .004, SD = .010$) had a significantly higher betweenness centrality than those located in non-member countries ($M = .002, SD = .005$). The findings indicate that NGOs located in OECD-member countries may be serving as bridges in the network.

When NGOs' level of social media use was examined, there were significant differences with regard to the number of tweets [$F(1, 612) = 8.330, p = .004$], videos uploaded on YouTube [$F(1, 612) = 4.587, p = .033$], and Twitter users followed by the NGO [$F(1, 612) = 19.744, p < .001$]. NGOs located in OECD-member countries had significantly higher averages for number of tweets ($M = 2,080, SD = 4,015$), YouTube videos uploaded ($M = 38, SD = 93$), and number of Twitter accounts following ($M = 652, SD = 1,372$), compared to NGOs not located in OECD-member countries ($M = 1,059, SD = 3,802$; $M = 21, SD = 83$; and $M = 184, SD = 379$, respectively). Considering that the three social media variables are related to the amount of content uploaded by the NGO and received from other Twitter users, NGOs located in OECD-member countries were more active in both spreading and acquiring information through social media.

Table 6.13. One-way ANOVA by Location of Main Office

	In OECD member countries (<i>n</i> = 439)		Not in OECD member countries (<i>n</i> = 175)		<i>F</i> -statistic
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Centrality:					
Degree	.006	.009	.005	.005	2.326
Betweenness	.004	.010	.002	.005	1.450*
Closeness	.241	.038	.245	.034	.223
Eigenvector	.021	.038	.020	.029	3.892
Social Media:					
Facebook					
Like	17,560	133,398	2,515	14,125	2.224
New page like	136	1,056	20	119	2.129
PTAT	842	7,638	42	155	1.918
Twitter					
Tweet	2,080	4,015	1,059	3,802	8.330**
Follower	12,849	106,356	1,204	4,569	2.094
Following	652	1,372	184	379	19.774***
YouTube					
Video	38	93	21	83	4.587*
Subscriber	608	5,709	83	546	1.478
Total view	331,527	3,349,513	49,756	436,340	1.227

p* < .05, *p* < .01, ****p* < .001

NGOs That Had Relationship with the UN Were Central in the Network and Active on Social Media

Mean differences of centrality measures based on NGOs' relationships with the UN showed significant differences across the four groups (no formal relationship, roster member, special member, and general member). For all four types of network centrality measures, holding consultative status with the UN had a significant effect. Although the three membership types offer varying degrees of opportunities to participate in the UN activities, from the roster member's occasional participation to the general member's greater access to UN deliberations, NGOs with general membership did not necessarily have higher network centrality than others.

A comparison of mean differences for the NGOs' four network centrality measures was found to be significant based on their status with the UN. NGOs registered with the UN were found to be located in a more central position in the network than those not registered with the UN. The findings in this section are based on post-hoc tests that detected significant differences between groups based on their membership status with the UN.

Table 6.14. One-way ANOVA by relationship with UN

	None (<i>n</i> = 472)		Roster (<i>n</i> = 28)		Special (<i>n</i> = 96)		General (<i>n</i> = 18)		<i>F</i> -statistic
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Centrality:									
Degree	.004	.007	.010	.010	.008	.010	.009	.007	10.844***
Betweenness	.002	.008	.006	.006	.006	.012	.009	.013	7.543***
Closeness	.237	.036	.263	.037	.255	.035	.266	.039	13.399***
Eigenvector	.017	.032	.058	.065	.025	.034	.037	.041	14.301***
Social Media:									
Facebook									
Like	4,478	20,963	10,533	22,322	32,135	176,613	148,396	501,423	10.893***
New page like	55	641	41	97	251	1,494	984	2,124	3.954**
PTAT	186	1,245	228	475	1,723	12,125	6,539	24,366	6.894***
Twitter									
Tweet	1,240	2,840	2,707	3,243	3,611	6,659	5,033	6,576	15.173***
Follower	2,442	8,987	6,099	7,909	31,809	184,365	81,905	301,007	7.018***
Following	399	1,020	663	962	957	1,740	1,081	1,581	7.571***
YouTube									
Video	23	75	74	128	61	120	86	145	9.390***
Subscriber	85	543	138	237	925	4,924	8,282	25,117	18.396***
Total view	46,346	379,839	99,817	264,492	339,160	1,693,205	5,383,296	156,603	22.571***

p* < .05, *p* < .01, ****p* < .001

For degree centrality [$F(3,610) = 10.844, p < .001$], NGOs with no relationship with the UN ($M = .004, SD = .007$) had significantly lower degree centrality than NGOs holding roster membership ($M = .010, SD = .010$) or special membership ($M = .008, SD = .010$). Considering that degree centrality is mainly measured in terms of the number of collaborative relationships an NGO has with other organizations, participation in UN-related meetings may offer networking opportunities with other NGOs in the field.

With regard to betweenness centrality [$F(3, 610) = 7.543, p < .001$], which is used to detect gatekeepers in the network, NGOs with no relationship with the UN ($M = .002, SD = .008$) had significantly lower average betweenness centrality than NGOs holding special membership ($M = .006, SD = .012$) or general membership with the UN ($M = .009, SD = .013$). Compared to those with no relationship with the UN, NGOs holding special or general status were found to be “in between” many of the organizations, which signifies a greater role as gatekeepers of information.

Closeness centrality [$F(3,610) = 13.399, p < .001$] measures the extent to which an NGO has access to other organizations in the network. In this study, this measure is used to investigate how “close” an NGO is to the rest of the network, which signifies its efficiency in acquiring necessary information from other organizations and in spreading important information to other organizations in the network. According to the post-hoc tests, NGOs that have established any type of membership status with the UN, roster membership ($M = .263, SD = .037$), special membership ($M = .255, SD = .035$), or general membership ($M = .266, SD = .039$), have higher closeness centrality measures than those with no relationship with the UN ($M = .237, SD = .036$). Such results indicate that NGOs registered with the UN are more efficient in reaching out to other NGOs in the network for the purpose of acquiring or spreading information.

Similarly, the comparison of eigenvector centrality measures [$F(3,610) = 14.301, p < .001$], which are related to connections with influential NGOs in the network, shows that NGOs with roster membership ($M = .058, SD = .065$) and special membership ($M = .025, SD = .034$) with the UN have collaborative relationships with a higher number of influential NGOs than those that do not have a relationship with the UN ($M = .017, SD = .032$).

With regard to social media use, results show that there are significant differences across the four groups depending on membership status with the UN. With regard to their Facebook likes [$F(3,610) = 10.893, p < .001$] and PTAT [$F(3,610) = 6.894, p < .001$], NGOs with general membership were found to have significantly higher number of likes ($M = 148,396, SD = 501,423$) and PTAT ($M = 6,539, SD = 24,366$) when compared to the other three groups: no relationship with UN (likes: $M = 4,478, SD = 20,963$; PTAT: $M = 186, SD = 1,245$), roster membership (likes: $M = 10,533, SD = 22,322$; PTAT: $M = 228, SD = 475$), and special membership (likes: $M = 32,135, SD = 176,613$; PTAT: $M = 1,723, SD = 12,125$). In addition, for the new page like measure [$F(3,610) = 3.954, p = .008$], the general membership group ($M = 984, SD = 2,124$) had a significantly higher number of recent Facebook subscribers than those not registered with the UN ($M = 55, SD = 641$). Based on relationship with the UN, the mean differences in Facebook variables signify that NGOs with general membership status (i.e., those with the greatest level of access to UN activities due to similar interests with the UN) receive more attention from Facebook users than other groups.

When Twitter variables are compared across groups based on relationships with the UN, both the general membership and special membership groups stood out in terms of the number of tweets posted [$F(3,610) = 15.173, p < .001$], number of followers [$F(3,610) = 7.018, p < .001$], and number of users they are following [$F(3,610) = 7.571, p < .001$]. The general membership group had the highest numbers of tweets ($M = 5,033, SD = 6,576$) and followers ($M = 81,905, SD = 301,007$), followed by the special membership group (tweets: $M = 3,611, SD = 6,659$; followers: $M = 31,809, SD = 184,365$). By contrast, the no membership group had far fewer tweets ($M = 1,240, SD = 2,840$). The results signify that NGOs with general and special membership with the UN are posting more tweets, and are followed by more other Twitter users, than the no

membership group. With regard to the number of followers, the general membership group also had a significantly higher number of followers than those with roster membership ($M = 6,099$, $SD = 7,909$). In addition, the special membership group ($M = 1,081$, $SD = 1,581$) was more active than the no membership group ($M = 399$, $SD = 1,020$) in following other Twitter users to acquire information.

Lastly, when YouTube variables were compared across the four groups, there was a significant difference in the mean number of videos uploaded between membership and non-membership groups [$F(3, 610) = 9.390$, $p < .001$]; the general membership group ($M = 86$, $SD = 145$), special membership group ($M = 61$, $SD = 120$), and roster membership group ($M = 74$, $SD = 128$) all were more active than the no membership group ($M = 23$, $SD = 75$). Analyses of the number of YouTube subscribers [$F(3,610) = 18.396$, $p < .001$] and total views [$F(3,610) = 22.571$, $p < .001$] revealed significant difference between the general membership group and the three other groups. With regard to the number of subscribers and total views of their YouTube channels, the general membership group (subscribers: $M = 8,282$, $SD = 25,117$; views: $M = 5,383,296$, $SD = 156,603$) had significantly higher averages than the no membership group (subscribers: $M = 85$, $SD = 543$; views: $M = 46,346$, $SD = 379,839$), the roster membership group (subscribers: $M = 138$, $SD = 237$; views: $M = 99,817$, $SD = 264,492$), and the special membership group (subscribers: $M = 925$, $SD = 4,924$; views: $M = 339,160$, $SD = 1,693,205$, respectively). These results reveal that NGOs registered with the UN are more actively producing and uploading content on YouTube and that the general membership group is receiving far more attention than other groups from other YouTube users.

FACTORS CONTRIBUTING TO NETWORK CENTRALITY

Analyses of organizational attributes and social media use revealed that sustainable development NGOs are able to reach out to other organizations in a timely manner when acquiring or spreading information. These organizations are also in favorable positions in the network, as they are better connected with influential organizations. With regard to the relationship between the locations of their main offices and network centrality, NGOs based in OECD-member countries are found to serve as bridges in the network by being in position to mediate information and by being more active in uploading content and following others through social media. Relationships with the UN were also found to be associated with network centrality, as NGOs with membership status with the UN, and those with general membership in particular, were found to be central in the network and to generate more content on social media. However, such findings are limited in explaining to what extent NGOs' social media use contributes to their centrality in the network, despite the fact that NGOs use social media in part to become known to and learn about other organizations, which often leads to formal collaborative relationships among them.

RQ4b asked about the factors among organizational characteristics and each organization's use of social media that contribute to an NGO's network centrality. A node-level regression analysis was conducted, based on the results of the one-way ANOVA analyses, to examine which organizational and social media variables contribute to NGOs' centrality in the network (i.e., degree, betweenness, closeness, and eigenvector). Step-wise regression was used to find significant factors, which were included in the regression results presented in the section.

Degree Centrality

Confirming the one-way ANOVA results discussed in the previous section, UN consultative status was a predictor among organizational attributes, explaining an NGO's degree centrality ($B = .001996$, $p = .025$). In terms of social media variables, aggregate number of Facebook likes ($B = 0.000000$, $p = .025$) and number of videos posted on YouTube ($B = .000027$, $p = .002$) had significant contributions to an NGO's degree centrality.

Table 6.15. Factors Predicting Degree Centrality of NGOs; OLS Regression with Permutation-based Standard Errors

	Un-standardized Coefficient	Standardized Coefficient	Proportion at large
Intercept	.002209	.000000	1.000
Age:			
Organization	.000046	.105554	.022*
Twitter account	.000249	.082083	.109
YouTube account	-.000111	-.040767	.711
UN Consultative status	.001996	.108149	.025*
Facebook: Likes	.000000	.118443	.025*
YouTube: Video	.000027	.309626	.002**
<i>R-Squared</i>	.214		
<i>Adjusted R-Squared</i>	.205		
<i>F statistic</i>	27.588**		

* $p < .05$, ** $p < .01$, *** $p < .001$

Betweenness Centrality

Number of followers on Twitter ($B = .000000$, $p = .029$) and number of videos uploaded on YouTube ($B = .000027$, $p = .003$) were found to have significant contributions to an NGO's betweenness centrality. None of the organizational attributes were found to be the best predictors in the model shown below.

Table 6.16. Factors Predicting Betweenness Centrality of NGOs; OLS Regression with Permutation-based Standard Errors

	Un-standardized Coefficient	Standardized Coefficient	Proportion at large
Intercept	-.001119	.000000	1.000
Age:			
Organization	.000107	.209216	.000***
Twitter account	.000256	.071338	.127
YouTube account	-.000162	-.050322	.762
Twitter: Follower	.000000	.108531	.029*
YouTube: Video	.000027	.268923	.003**
<i>R-Squared</i>	.175		
<i>Adjusted R-Squared</i>	.167		
<i>F statistic</i>	25.815**		

* $p < .05$, ** $p < .01$, *** $p < .001$

Closeness Centrality

Among the organizational attributes, the sustainable development issue area ($B = .008232$, $p = .005$) and consultative membership status with the UN ($B = .019118$, $p < .001$) were found to be significant predictors of an NGO's closeness centrality, which confirms previous findings from the one-way ANOVA. Number of YouTube videos ($B = .000067$, $p = .005$) uploaded was also found to have a significant contribution to an NGO's closeness centrality.

Table 6.17. Factors Predicting Closeness Centrality of NGOs; OLS Regression with Permutation-based Standard Errors

	Un-standardized Coefficient	Standardized Coefficient	Proportion at large
Intercept	.230676	.000000	1.000
Age:			
Organization	.000088	.042578	.180
Twitter account	-.000701	-.048454	.781
YouTube account	.000141	.010907	.438
Sustainable development	.008232	.109396	.005**
UN Consultative status	.019118	.217163	.000***
YouTube: Video	.000067	.163788	.005**
<i>R-Squared</i>	.100		
<i>Adjusted R-Squared</i>	.089		
<i>F statistic</i>	11.204**		

* $p < .05$, ** $p < .01$, *** $p < .001$

Eigenvector centrality

The sustainable development issue area ($B = .025804$, $p < .001$) and consultative membership status with the UN ($B = .012617$, $p = .003$) were also significant predictors of an NGO's eigenvector centrality. With regard to social media use, the number of videos uploaded to YouTube suggested a significant contribution to an NGO's collaboration with influential organizations in the network ($B = .000130$, $p < .001$).

Table 6.18. Factors Predicting Eigenvector Centrality of NGOs; OLS Regression with Permutation-based Standard Errors

	Un-standardized Coefficient	Standardized Coefficient	Proportion at large
Intercept	-.000735	.000000	1.000
Age:			
Organization	.000150	.075507	.060
Twitter account	.000106	.007565	.436
YouTube account	-.000513	-.041036	.715
Sustainable development	.025804	.355273	.000***
UN Consultative status	.012617	.148472	.003**
YouTube: video	.000130	.328649	.000***
<i>R-Squared</i>	.277		
<i>Adjusted R-Squared</i>	.268		
<i>F statistic</i>	38.671***		

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 6.19. Summary of Significant Factors Predicting Network Centrality of NGOs

	Degree	Betweenness	Closeness	Eigenvector
Age:				
Organization	*	***		
Issue:				
Sustainable development			**	***
UN Consultative status	*		***	**
Social media:				
Facebook likes	*			
Twitter follower		*		
YouTube video	**	**	**	***

* $p < .05$, ** $p < .01$, *** $p < .001$

ADDITIONAL ANALYSIS OF THE RELATIONSHIP BETWEEN SOCIAL MEDIA ADOPTION AND NETWORK CENTRALITY

Based on the findings of survey studies on NGOs' social media adoption for information sharing and networking with other NGOs (Seo et al., 2009), this study examined which organizational and social media variables contribute to NGOs' centrality in the network (i.e., degree, betweenness, closeness, and eigenvector). However, as the dataset used in this study does not contain any further information supporting the direction of the causal relationships between social media use and network centrality, additional analysis was conducted regarding the relationship between the length of time since social media adoption and network centrality scores.

Table 6.20. One-way ANOVA by Age of an NGO's Twitter Profile

	Early adopter (<i>n</i> = 294)		Late adopter (<i>n</i> = 313)		<i>F</i> -statistic
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Centrality:					
Degree	.007	.010	.004	.004	20.998***
Betweenness	.005	.012	.002	.005	12.142**
Closeness	.245	.040	.240	.034	.096
Eigenvector	.026	.044	.016	.025	.001**

p* < .05, *p* < .01, ****p* < .001

Table 6.21. One-way ANOVA by Age of an NGO's YouTube Profile

	Early adopter (<i>n</i> = 216)		Late adopter (<i>n</i> = 391)		<i>F</i> -statistic
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Centrality:					
Degree	.007	.011	.004	.005	20.289***
Betweenness	.005	.013	.002	.006	10.417**
Closeness	.247	.039	.239	.035	6.025*
Eigenvector	.029	.050	.017	.024	17.085***

p* < .05, *p* < .01, ****p* < .001

The mean ages of NGOs' Twitter and YouTube accounts, 2.55 years and 2.14 years, respectively, were used as cut points to divide the NGO groups into early adopters and late adopters. One-way ANOVA results show that early adopters of Twitter and

YouTube had significantly higher network centrality scores than late adopters, although there was an exception for the mean difference of the two groups' closeness centrality scores when the ages of Twitter profiles were considered. Based on these results, node-level regression analysis was conducted controlling for organizational variables.

Table 6.22. Social Media Adoption as a Predictor of NGOs' Degree Centrality; OLS Regression with Permutation-based Standard Errors

	Un-standardized Coefficient	Standardized Coefficient	Proportion at large
Intercept	-.000848	.000000	1.000
Control variable:			
Age of organization	.000056	.129540	.008*
Issue	-.000035	-.002726	.520
UN Consultative status	.002439	.131576	.007*
Location	.000060	.003447	.0461
Social media adoption:			
Age of Twitter account	.000341	.112360	.041*
Age of YouTube account	.000338	.124747	.028*
<i>R-Squared</i>	.112		
<i>Adjusted R-Squared</i>	.101		
<i>F statistic</i>	12.561***		

* $p < .05$, ** $p < .01$, *** $p < .001$

Out of the four network centrality measures, NGOs' degree centrality scores were found to have early adopters of Twitter ($B = .000341$, $p = .041$) and YouTube ($B = .000338$, $p = .028$) as significant predictors. However, there was no indication that NGOs currently in the periphery of the network were early adopters of social media. In other words, it is possible that NGOs that used to be in disadvantaged positions in the network were already able to be placed in central positions with their effort to establish formal relationships with many other organizations after utilizing social media for almost a decade. On the other hand, if the role of the social media is limited in assisting peripheral NGOs to interact with other organizations, such results reveal that NGOs that are already at the center of the network managed to maintain favorable positions in the

network through their continued efforts to interact with other organizations through their social media channels.

Therefore, in order to find stronger evidence for the causal relationship between social media presence and network centrality, a longitudinal study comparing NGOs' network positions before and after their social media adoption is recommended.

INTERVIEWS WITH NGO COMMUNICATION OFFICERS

This chapter has described the structure of inter-organizational networks, the kind of organizations involved, the most influential players, their patterns of collaboration, and the relationship between their organizational characteristics or social media use and their network centrality. While these findings provide a general overview of the structure of inter-organizational networks and each organization's patterns of collaboration, such an approach is limited in that it does not reveal much information about the details of each NGO's work, its organizational goals, or further details about its communication practices. Adding to previous findings, this section presents the results of nine interviews conducted with NGO communication officers. Organizations for the interviews were randomly selected from the list of NGOs included in the study. Although the study used a stratified sampling method by contacting randomly selected organizations based on their network positions, not all organizations participated in the interview. Therefore, there are limitations when considering these organizations to be stars, bridges/brokers/gatekeepers, or isolates. However, additional information about each organization, such as its scope of work, geographical location, and partnership information, is provided for contextualization. Interviewees were asked questions regarding the purpose, target audience, strategies, perceived opportunities, and challenges in pursuing their work. Interviews lasted about 40 minutes to an hour.

Sustainable Development NGOs

Among the 614 sustainable development NGOs included in this study, interviews were conducted with three organizations: Climate Action Network (CAN), a Lebanon-based organization serving more than 900 NGO members in about 100 countries worldwide; EcoPeace Middle East (formerly Friends of the Earth Middle East), which is based in Jordan with two other offices in the region, a group that tries to bring about collaborations among Jordanian, Palestinian, and Israeli environmentalists; and Vredeseilanden (VECO), a Belgium-based organization working with family farmers in the Global North and South. With respect to these groups' transnational operations, CAN's members and its regional and national offices show a wider geographical distribution and reach. VECO has offices in Africa, Asia, and Central and South America, and EcoPeace focuses on the Middle Eastern region. In terms of these groups' scope of work, EcoPeace Middle East approaches the broader issue of sustainable development by working on a variety of issues related to environmental protection, and CAN focuses on the specific issue of climate change. VECO's scope of work is more specific in that it attempts to tackle the issue of hunger and poverty by providing advocacy and service for family farmers' rights to sustainable livelihoods.

Human Rights NGOs

Among a total of 724 human rights organizations identified in this study, four organizations were interviewed. ESCR-net is a worldwide network organization with a focus on advocating for economic, social, and cultural rights from its secretariat in the US. Light for the World is a group of European NGOs that work specifically for the rights of persons with disabilities. Both ESCR-net and Light for the World were identified as bridges in the network. The International Center for Research on Women (ICRW) is a US-based, research-oriented NGO, and Breakthrough serves youth and their

families. Both of these organizations were identified as isolates in the human rights network.

Journalism NGOs

Among 92 journalism organizations, interviews were conducted with two organizations. International Federation of Journalists (IFJ) is a Belgium-based organization, and it is the largest organization for journalists, with 600,000 members. In the earlier analysis, IFJ was identified as a star player in the journalism network. On the other hand, Pulitzer Center on Crisis Reporting is a US-based organization with only one partner organization reported in the *Yearbook* database. In terms of its scope of work, IFJ functions just like other network organizations (such as CAN and ESCR-net) in that it exists to serve its members; Pulitzer Center on Crisis Reporting primarily focuses on financially supporting journalists who cover international news.

Network NGOs Serving as Bridges and Using Social Media to Serve Their Member Organizations

Among the NGOs interviewed, four NGOs were identified as bridges in their respective networks: CAN in the sustainable development network, ESCR-net and Light for the World in the human rights network, and IFJ in the journalism network. The commonality between these NGOs is that they are network-type organizations that are founded mainly to serve member organizations. Accordingly, all four of these NGOs stated that their purpose in using social media was to serve their member organizations with timely information about their issues of concern and to foster communication among their member organizations. However, they did not have a specific purpose of serving the general public with the content they uploaded. They expected to generate a conversation through the social media realm by having their members re-post the information that they

provide. Naturally, their target audience was not the general public but their member organizations. For instance, the statement made by CAN's International Communications Coordinator included:

“It’s a huge new channel for us... it’s a new opportunity for us to communicate with our members and also to have our own base. It’s not that the mission of CAN is to grow a public audience, but the mission of CAN is to empower our members to speak to their audience. So, through speaking to them, they can take our work and keep the conversation going.”

(Ria Voorhaar, Head of International Communications Coordination at CAN)

However, not every NGO actively communicated through its social media channels with its member organizations. IFJ's communication office expressed that it posts daily releases through social media but that it is not their priority in terms of their overall communications work:

“We want to update it more because, unless it is regularly updated, it is not worthwhile. We have new information everyday, and that’s pretty easy to handle. But we can’t do this all the time when there are other events. I think we can improve a lot, but we’re already doing much better than the past.”

(Pamela Morinière, Communication Officer at the IFJ)

Pendant and Isolate NGOs Reaching out to the General Audience on Social Media

While network-type NGOs, with their bridging roles in their respective networks, focus on serving their member organizations through social media, NGOs that were found to be pendants or isolates stated that they use social media to reach out to the general audience. For instance, interviews with the communication officers at Breakthrough, an isolate organization in the human rights network, and the Pulitzer Center on Crisis Reporting, a pendant organization in the journalism network, showed

that they perceive social media as platforms to reach out to the general audience and inform them about issues of concern. The Pulitzer Center on Crisis Reporting used its social media channels to post links to reports by journalists who they supported and to extend its organizational goal to raise awareness about systemic crises at the global level. The managing director at the Pulitzer Center on Crisis Reporting said:

“We’re trying to be where people are. If people are on Twitter, we’d better be on Twitter... [Social media] in and of itself is a way of raising awareness of the issues... They learn about those issues when they share our posts with others, and that’s an impact in and of itself.”

(Nathalie Applewhite, Managing Director at the Pulitzer Center on Crisis Reporting)

Challenges Faced by NGOs Covering Specific Regions

Among the NGOs interviewed, two covered specific regions. EcoPeace Middle East covers the Middle Eastern region, and VECO works with countries in Africa, Asia, and Central and South America. Both these NGOs are working in the field of sustainable development, and they introduced the challenges of their communication work in relation to their interaction with local media. For instance, the media and PR officer at EcoPeace Middle East faced difficulties working with journalists in the local media when she first moved to the region to work for the organization:

“In Palestine we have problems with the media... because they [see] an Israeli aspect of our work, it is very difficult to get local media to cover our events. Whenever I invite the media to attend to our events, I usually get refusals. And after they boycott the event, they produce something of their own imagination.”

(Samar Salma, Media & PR Officer at EcoPeace Middle East)

VECO, a Belgium-based NGO working to resolve the issue of hunger and poverty by working with local farmers, described its challenges in interacting with the local media due to the nature of the issues that the NGO advocates for. Jelle Goossens, VECO's communication officer, said that it is extremely difficult to gain publicity in the local media outlets, as the issues they cover are considered irrelevant in the region:

“We’re becoming more global, but our journalism is becoming more local.”

(Jelle Goossens, Communications Officer at VECO)

In these organizations, such challenges were remedied by the strategic use of social media channels. EcoPeace Middle East's communication officer attempted to add transparency to the issues discussed by the organization through its social media channels:

“So what I did to combat the problem is that I would go to the event, take pictures... I report whatever happens in the conference and send all the information to the media. When they publish incorrect information, I post my report there. I have followed this procedure many times, and it has been successful. They are now following our social media channels and tak[ing] the information from there.”

(Samar Salma, Media & PR Officer at EcoPeace Middle East)

VECO's communication officer also mentioned that social media offers a platform to directly interact with the general audience and to keep local journalists involved in the organization's informational content:

“Social media is a way of transparently communicating with our supporters and the people interested in the work... Twitter has also become an important way to relate to journalists.”

(Jelle Goossens, Communications Officer at VECO)

Twitter for Distribution of News and Facebook for Developing Relationships

In line with the view presented by VECO's communication officer, NGOs used social media channels in a differentiated way. A few of the NGOs interviewed in this study stated that they concentrate on uploading informational content on Twitter and that Facebook is used for the purpose of developing relationships with donors and people who regularly attend their events:

“Twitter is mainly used to distribute news to people, for advocacy, and media professionals. Facebook is used to receive follow-up with our donors and to develop relationships.”

(Andrea Zefferer, International Media Relations at Light for the World)

Opportunities: Impact of Social Media Use on Collaboration among NGOs

NGO communication officers introduced several ways that social media contributes to collaboration among NGOs in terms of sharing successful strategies and other information. Before the emergence of social media, NGOs were more cautious about referring to information provided by other organizations and only trusted organizations with which they had established formal relationships. For instance, CAN's communication officer explained that social media channels established a new culture among NGOs:

“What I like about social media is that our groups are now much more comfortable sharing other groups' work because that's what you do on social media. ‘Look at that info-graphic, look at that picture...’ So it fosters collaboration and amplification in a way that wasn't as possible before. It's not only an intra-movement tool because it also makes our voice outside stronger... That changed NGOs' social media practices.”

(Ria Voorhaar, Head of International Communications Coordination at CAN)

For NGOs with relatively few resources, including name recognition, staff, and financial resources to invest in communications work, social media also helps them communicate their message to other organizations, media professionals, and the general audience. For instance, ICRW, a research-oriented NGO working for the rights of women, uses its fact-based study results to form relationships with other NGOs on social media platforms so that those groups might deliver ICRW's content to their subscribers:

"I think that sharing can yield a more resource-rich relationship on social media. There are tons of organizations with high brand recognition, and all they tweet is their own stuff, and they rarely share stuff from others. But in-house, they are resource-rich. It's just their marketing priority to only highlight their own work. For organizations like ours, without as much financial resources as we would like, we're really dependent on the relationships with other organizations to help get the word out about our work."

(Erin Kelly, Communications Specialist at the ICRW)

For a network-type NGO like ESCR-net, which serves 220 NGOs across 70 countries around the world, sharing successful strategies with the rest of the organizations in the network became a common practice, established through the organization's social media channel:

"The main purpose of the network is to [connect] the different members we have to share strategies and collective work, and to offer support and solidarity among the different members we have. What we do is to share [successful cases] with members across different regions. When we share the solution from the Philippines, for example, maybe other members in Peru or Bolivia can be benefited from the Philippines case."

(Sergio Rozalén, Communications Coordinator at ESCR-net)

CONCLUSION

Chapter 7: Potential for Inter-organizational Networks of NGOs to Form a Global Communication Structure

The purpose of this dissertation was to conduct a structural analysis of inter-organizational networks formed around the three issues of sustainable development, human rights, and journalism; to examine inter-organizational linking patterns and to identify the key actors in the networks; to examine factors such as organizational characteristics and the level of social media use contributing to an NGO's network centrality; and to identify the purpose, target audience, challenges, and opportunities of NGOs' communication work through interviews with NGO communication officers. As the example of organizations included in this study suggests, more NGOs are becoming involved in the production and distribution of news about international and public affairs nowadays. There are different types of content being distributed through NGOs' social media accounts, from breaking news stories of a region that are not fully covered or frequently updated by the legacy media to research-based findings that are used to support policy change. Therefore, with regard to NGOs' contribution to international society and the field of journalism, the primary interest of this study was to examine the extent to which NGOs are complementing the existing structure of global communication, which is fairly unbalanced and unequal across developed and underdeveloped parts of the world. In this regard, this dissertation had two major questions to answer: (a) based on the structure of the inter-organizational network of international organizations and their propensity to tie with each other, what can be speculated in terms of the diversity and flow of news and information exchanged among these groups? and (b) in what ways might NGOs improve in their production and distribution of news and information so that their messages can be more successfully

delivered to each other, media professionals, and policy makers? In order to provide answers to these major questions, the current chapter includes a summary of the findings of this dissertation accompanied by the implication of the results of this study, a discussion of the study's limitations, and directions for future research.

SUMMARY OF FINDINGS AND DISCUSSION

This study began with an analysis of the structures of three networks formed around organizations working in the areas of sustainable development, human rights, and journalism. Among the three networks, the largest network was formed around the issue of sustainable development, followed by the human rights network. The network specifically focusing on the issue of journalism had the smallest number of organizations among the three networks. In terms of the general distribution of organizations within each network, sustainable development organizations had more IGOs in central positions in the network, and they were located in the Global South. This may be due to the fact that the issue of sustainable development traditionally has been discussed through conferences and meetings held by IGOs, where nation-states hold memberships in these organizations. For a similar reason, most of the IGOs working on sustainable development were founded in countries where the most support was needed, which explains why these organizations have established strong ties with many of the organizations working in this area. On the other hand, the human rights network had Western-based NGOs in its central position. Given that most of the organizations reporting cases of human rights violations are civil society groups, rather than IGOs, most of the NGOs might be based in developed countries, where they encounter relatively less interference from the state government for expressing their views. As for the case of the journalism network, it was found that only a few NGOs existed to aggregate and report

on the cases from different geographical regions, which explains why a couple of the NGOs based in the Global North were found to be central in the network.

With regard to the characteristics of the organizations involved in the three networks, more than two-thirds of the organizations were based in the Global North, suggesting more civil society organizations are formed in developed nations compared to the underprivileged parts of the world. The majority of those NGOs had no relationship with the United Nations; in fact, only about 200 of these NGOs were found to have consultative status with the UN. Most of the NGOs were founded during the mid-1980s, but the number of these organizations has continued to grow, which reveals the necessity and interest in covering the areas of sustainable development, human rights, and journalism continues. With regard to their social media presence, about half of the organizations were found to represent themselves through social media, confirming that a North-South divide of communication and information technologies still persists around the globe, even after more than a decade of the Internet being opened for public use in most of the developed countries (Norris, 2001; Shumate & Dewitt, 2008).

Potential for Inter-organizational Networks of NGOs to Form the Foundation for a Global Communication Network

In terms of the structure of the networks included in the study, although all three networks had relatively low degrees of interconnectivity among the organizations, the sustainable development and human rights organizations had higher numbers of collaborating organizations on average compared to the journalism organizations, which suggests the inter-organizational networks for the issues of sustainable development and human rights may potentially be providing a better structure for global communication for issues of their concern. However, with regard to the tendency for centralization of the network, which examined whether ties were concentrated between a few organizations

rather than spread throughout the whole network, the journalism network was found to have a higher centralization, with only a few of the organizations dominating the ties. This result suggests that, even though the journalism network may have loose connections throughout the whole network, organizations focusing on the issue of journalism may be more efficient in the way they communicate issues, as only a few of those organizations need to deliver a message to start the subsequent deliberation. With regard to the level of reciprocity in the network, organizations working in the area of sustainable development showed a tendency to have reciprocal relationships once a collaborative relationship was established between two organizations. This suggests the sustainable development network possesses more stable relationships among the involved organizations.

Such structural characteristics of each network suggest that, if these networks are seen as forming a global communication structure that mediates the flow of international news and information, there may be greater exchange of information on issues related to sustainable development and human rights than those related to journalism. On the other hand, as the journalism network has a higher centralization level, with a few umbrella organizations aggregating and distributing cases of violation from each geographical region, these organizations may be more efficient at working together to generate a “boomerang effect” targeted against state governments neglecting the issues raised by the NGOs in the region (Keck & Sikkink, 1998). For example, an interview with the communication director of the International Federation of Journalists (IFJ), which had the highest number of partnering organizations in the network, revealed the organization serves its partners in 134 countries by collecting and sharing information about journalists’ working conditions reported by regional NGOs. The existence of NGOs like

the IFJ that serve as the secretariats for their member organizations may make the process more effective in initiating responses targeted against national governments.

Diversity of News and Information Exchanged and the Direction of the Flow

While analyses of the structural characteristics of the three networks revealed levels of interconnectivity and effectiveness of the communication process among these NGOs that potentially build the foundation for a global communication structure, an examination of the linking patterns among the different types of organizations showed the diversity and flow of news and information being exchanged among these groups. As one of the problems the current communication system revealed is the dominance of Western media organizations in reporting global issues—which is lacking in the sufficient exchange of information between the Global North and the Global South, as well as between the peripheral countries located in the Global South—analyses of NGOs' linking patterns revealed the extent to which the current communication system might be complemented by NGOs' efforts to produce and disseminate news and information on issues on which they are working.

Analyses of the linking patterns among these organizations revealed interactions between organizations located in the Global North and the Global South were not very active, which signifies a lower chance of the inter-organizational structure to overturn the tendency for unbalanced and unequal construction of the existing global communication system. According to the homophily hypothesis in the social network theory, organizations with similar characteristics (in terms of the type of organization and geographical location) are often expected to be more likely to connect with each other (McPherson et al., 2001). However, the present study found only the IGOs working on the issues of sustainable development and human rights were likely to interact with each

other, whereas NGOs on both issues were less likely to collaborate with each other. The results were similar when the propensity to tie to each other based on the location of their main offices was tested. In the sustainable development network, organizations based in the Global South were more likely to connect to each other while those in the Global North were less likely to interact with each other. As for the case of the human rights network, organizations based in the Global North were more likely to tie to each other while organizations based in the Global North and the Global South were less likely to connect to each other.

Therefore, the analysis of the linking pattern of these organizations did not fully support the social network theory's homophily hypothesis. Instead, the results may be better interpreted in accordance with the resource dependence theory (Pfeffer & Salancik, 1978). Generally, the amount and types of resources an IGO possesses are considered to be richer than those of NGOs, as IGOs are supported by a number of national governments while NGOs are generally funded by private donors. In addition, the results of the structural analysis of each network revealed the majority of the organizations in the center of the sustainable development network were IGOs based in the Global South, while Western-based NGOs were found to be central in the human rights network. Among the variety of factors that might contribute to an organization's centrality in a network—that is, in order for an organization to establish collaborative relationships with many other organizations—the particular organization is perceived to be resource-rich and have something to offer or exchange with the other organizations, whether that be financial, human, or information resources. Therefore, this study suggests collaborative relationships in the sustainable development and human rights networks are better explained in accordance with the resource dependence theory.

One of the results with a positive connotation of the inter-organizational network structure was that, in the sustainable development network, organizations in the less-developed parts of the world showed a tendency to collaborate with each other. Such results signify there may be an active exchange of information among the actors marginalized in the global communication system comprised by governmental agencies and Western media outlets. In addition, as an increasing number of NGOs are currently participating in UN deliberations upon establishing a relationship with the UN, meetings hosted by the UN could serve as an opportunity to bring about interactions among organizations based in the Global North and the Global South.

This study makes theoretical and methodological contributions by testing the two competing theories that are traditionally applied to social network analysis of inter-organizational relationships. While social network studies in the field of journalism attempted to test homophily effects by examining hyperlinking patterns between political websites or news-related blogs created by other non-professionals of news, this study extended the area of research by focusing on the interactions between NGOs that are emerging as new sources of international and public affairs information. On the other hand, while traditional organizational studies focused on explaining resource dependence theory by investigating patterns of interaction between private corporations, this study attempted to test the theory using not-for-profit organizations' collaborative relationships, which is a relatively understudied area of research.

In relation to the fact that the results of this research did not fully support either the homophily hypothesis or resource dependency, it is suggested that studies of international organizations may be approached differently from the existing traditions for further advancement of the two theories. The first step would be to redefine some of the key variables involved in the analysis. For instance, "characteristics of organizations"

described by the homophily hypothesis and the term “internal and external resources” referred by resource dependence theory may be adjusted considering the environment in which international organizations are placed. Type of organization (e.g., IGO or NGO), location of main office (e.g., Global North or Global South), as well as an organization’s relationship with the UN (e.g., consultative status), are variables that are typically used to describe similarity of organizational characteristics in studying international organizations. However, it is important to note that such attributes not only provide information about an organization’s characteristics but also indicate the value and amount of resources possessed by an organization. Typically, IGOs, organizations based in Global North, and those with established relationships with the UN are perceived as resource-rich organizations compared to their counterparts. Unlike for-profit organizations, such characteristics are interrelated with the amount of resources possessed by those organizations. For these reasons, it is often difficult to separate the effects caused by similarity of organizational characteristics and the influence of the resources sought by these organizations. In a similar manner, it is worthwhile to begin discussing how NGOs’ social media presence applies in this context as it may be used either as an organizational attribute or a variable describing one’s informational resources. Such clarification of the key definitions in relation to the two theoretical approaches requires further attention for advancement of research in this area.

Organizational Factors Associated with Network Centrality and Social Media Use

When the factors associated with network centrality and social media use were examined by organizational characteristics, sustainable development NGOs had greater access to the rest of the organizations in the network, as well as to influential NGOs. This result suggests sustainable development NGOs are easily able to contact the rest of the

organizations in their network as well as the influential ones in the combined network of NGOs working on the three issues.

NGOs located in OECD-member countries served as bridges in the network, and they were more active in the distribution and collection of news and information through social media compared to NGOs not located in OECD-member countries. In addition, NGOs holding consultative status with the UN were in favored positions in the network and more active in using social media compared to those not registered with the UN.

Findings in this section imply establishing a formal relationship with NGOs working on the issue of sustainable development, those based in OECD-member countries, and those with consultative status with the UN might assist an organization to be placed in a more favorable position in the inter-organizational network.

Factors Contributing to an NGO's Network Centrality

Finally, this study attempted to further investigate the extent to which an NGO's social media use contributes to its network centrality. An interview with the communication officer of the International Center for Research on Women (ICRW), a small organization with limited resources to spend on interacting with media professionals and gaining coverage of its projects, suggested some NGOs are using social media services like Twitter to search for and reach out to other organizations for partnerships. The interviewee's definition of collaboration was not restricted to formal relationships like joint projects but also included simple tasks like redistribution of each other's research findings through social media.

Statistical analyses included in this study identified significant contributions of some social media variables to an NGO's network centrality. For instance, the number of videos published on YouTube was found to be a significant predictor in terms all four network centrality measures of an NGO. Even though a single measure of an

organization's activeness on one of the social media platforms may not provide a full explanation, the results imply production and distribution of visual materials, rather than text-based content, may be more efficient in having an NGO's messages delivered and eventually having its presence recognized in the field (Seo et al., 2009). In addition, the number of followers on an NGO's Twitter account signified its potential to serve as bridge and gatekeeper in the network. The role of a bridge or a gatekeeper is given to an NGO that connects other organizations in the network that are otherwise disconnected. Given these results, it may be implied that the online platform of Twitter is serving as a space where organizations with diverse interests and areas of expertise gather to seek relevant news and information. Such interpretation is in line with the findings of previous research on the use of Twitter for the purpose of news consumption (Chyi & Chadha, 2011).

Among the organizational characteristics identified as predictors of strong network centrality, consultative status with the UN was found to contribute to an NGO's degree, closeness, and eigenvector centralities. These centrality measures explain that holding membership with the UN might increase an NGO's chances to network and establish formal relationships with many other NGOs, even the most influential ones. In addition, an NGO working in the area of sustainable development was also found to be one of the predictors of high betweenness, closeness, and eigenvector centralities. These results imply working on the issue of sustainable development does not necessarily increase the chances of establishing formal relationships with other NGOs; however, at least among the sustainable development, human rights, and journalism NGOs, sustainable development NGOs are more likely to serve as bridges or gatekeepers, with access to the rest of the organizations in the network, including the ones that are highly influential.

LIMITATIONS OF THE STUDY AND FUTURE RESEARCH

At this time in the changing media landscape within the realm of international reporting, NGOs have been growing in their news-making efforts, which contributed to the current discussion about their potential for and importance of functioning as news entities. Legacy news outlets have reduced the number of foreign correspondents and closed many foreign bureaus due to financial constraints, yet NGOs have expanded their influence in terms of financial resources and international outreach (Karajkov, 2007). Noting the resources and professional capacity of NGOs to cover international affairs came to rival news agencies nowadays (Powers, 2015), this study attempted to offer a good vantage point for observing and examining NGOs' role as news entities in terms of their structure, nature of information exchanged, and other external and internal factors shaping their communication behavior.

However, a number of limitations exist that may be addressed in future research. First of all, even though the structure of inter-organizational networks made it possible to speculate on the communication networks among NGOs, a survey of NGO communication officers regarding their formal or informal interaction with each other would yield better results in investigating the actual structure of global communication networks. If the scope of research is on their interaction through social media channels, analysis of their online networks through interactive media platforms might also provide a good description of how NGOs are connected in the social media realm. Secondly, although this study included nine in-depth interviews to offer descriptions outlining the purpose, target audience, opportunities, and challenges of their communication work, a research study that particularly applies an ethnographic approach or a case-study method might further the understanding of these organizations in detail. Thirdly, even though this study involved quite a large number of NGOs and IGOs in its analysis, organizations

were limited in their issue specialty to three selected areas, and thus, some of the findings may not be generalized to other NGOs. Lastly, future research is necessary to examine the actual impact of NGOs' news and information work in relation to the coverage of legacy media and conversations generated among subscribers to NGOs' news and information content distributed online.

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